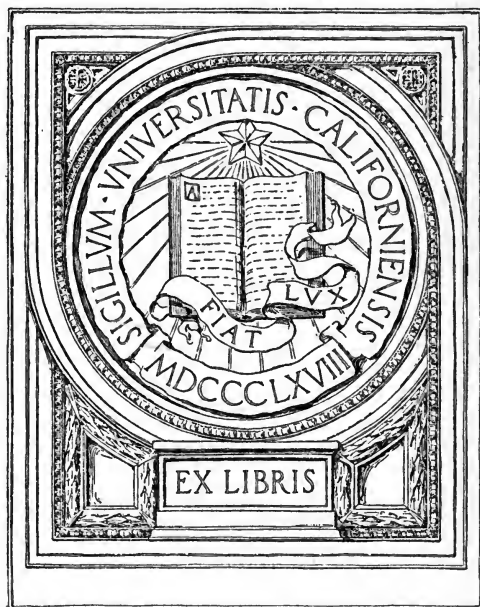


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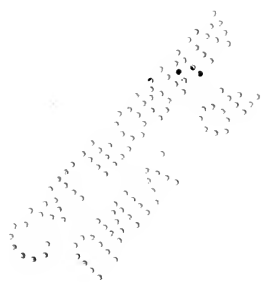
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GOVERNOR CHARLES S. WHITMAN

STATE OF NEW YORK

PRELIMINARY REPORT

OF THE

Joint Legislative Committee

ON

Dairy Products, Live Stock and
Poultry

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SENATOR CHARLES W. WICKS, *Chairman*

• Joint Legislative Committee on Dairy Products, Live Stock and Poultry

STATE OF NEW YORK

No. 35

IN SENATE

FEBRUARY 15, 1917.

PRELIMINARY REPORT

OF THE

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS, LIVE-STOCK AND POULTRY

To the Legislature of the State of New York:

The Joint Legislative Committee appointed pursuant to the joint resolution adopted by the Senate and Assembly of the State of New York, in the year 1916, hereby submits the following preliminary report:

CREATION OF COMMITTEE

During the session of 1916 the following resolution was adopted both in the Senate and Assembly:

“WHEREAS, It is alleged that the distribution of milk and butter, eggs, poultry and live-stock produced in this State is controlled by combination and monopoly of dealers and manipulation of prices to such an extent as to reduce production and in such manner as to impair the quality and unduly enhance the prices to consumers; and

“WHEREAS, It is further alleged that such practices are becoming more and more aggravated and result in discourag-

ing agriculture, reducing production, depressing the value of farm land, and in increasing the cost while lowering the standard of living;

“ *Resolved* (if the Assembly concur), That a joint legislative committee be and the same is hereby constituted to consist of four Senators and five members of the Assembly to inquire into such conditions;

“ *Resolved*, That such committee be hereby authorized to sit anywhere within the State, to choose a chairman from among its own members, and employ a secretary, counsel, and such other assistants as may be needed, to take testimony, subpoena witnesses and compel production of books, documents and papers, and otherwise have all the powers of a legislative committee;

“ *Resolved*, That such committee, on or before February 1st, 1917, report the results of its inquiries to the Legislature, together with such proposed legislative measures as it deems advisable to carry its recommendations into effect;

“ *Resolved*, That the expenses of such committee, not exceeding twenty-five thousand dollars (\$25,000), be payable from the contingent fund of the Legislature.”

The records of the Senate and Assembly show that said resolution was adopted by both houses of the State Legislature.

Pursuant to the provisions of the said concurrent resolution, the temporary president of the Senate appointed as members of said committee on the part of the Senate the following Senators:

Senator Charles W. Wicks;
 Senator N. Monroe Marshall;
 Senator Morris S. Halliday;
 Senator Daniel J. Carroll.

The Speaker of the Assembly, pursuant to the joint resolution, appointed as members of said committee:

Assemblyman H. Edmund Machold;
 Assemblyman Walter W. Law, Jr.;
 Assemblyman Henry L. Grant;
 Assemblyman Daniel P. Witter;
 Assemblyman Frank J. Taylor.

The authority conferred on this Committee by the Legislature and the requirements of the resolution as to the report of the Committee appear at length in the foregoing concurrent resolution.

ORGANIZATION OF COMMITTEE

The Committee organized on the 15th day of June, 1916, by electing Hon. Charles W. Wicks, chairman, and Hon. H. Edmund Machold, vice-chairman, and Hon. Walter W. Law, Jr., as secretary. The Committee appointed Mr. George W. Ward as counsel, with Mr. James C. Bronner as his assistant.

As it was evident that the investigations of the Committee would require the services of a competent expert accountant or accountants, the Committee, after consultation with the experts of the Dairy Division of the United States Department of Agriculture and other public bodies and officials in touch with the subjects in the hands of the Committee, employed Mr. Herbert B. Hawkins, a certified public accountant, of 198 Broadway, New York, to make as full and complete an audit of the records and accounts of typical milk distributing companies as the time and funds of the Committee permitted.

Certain companies were selected by the Committee after a careful examination of the field as being representative of the various types of companies engaged in the business. In addition to the complete audits of these selected companies for the year in question, examination was made into various phases of the work of other companies to the end that the Committee might be generally familiar with costs of distribution, important factors of costs, capitalization, profits, and modes of operation. The Committee found that on October 9, 1914, a proceeding had been instituted in the Supreme Court of the State of New York upon the petition of James A. Parsons, Attorney-General, pursuant to chapter 25 of the Laws of 1909, as amended, constituting chapter 25 of the Consolidated Laws, for an inquiry into the practices of the so-called Butter and Egg Exchange in the City of New York; that said inquiry had been pursued by the Attorney-General's office of the State and evidence taken during the years 1914 and 1915, and until December 17, 1915, which was followed by a report of the referee, Hon. Edward R. O'Malley, to Hon. Egbert E. Woodbury,

Attorney-General, shortly prior to the commencement of the work of this Committee. The Attorney-General's office had employed in this work, in addition to its other agencies, the firm of M. & L. W. Scudder, certified public accountants, of 55 Wall street. This firm had made an exhaustive investigation into the accounts and records and business methods of the members of the so-called Butter and Egg Exchange and complete reports of this work were on file in the Attorney-General's office. After consultation with the Attorney-General, all the evidence and records of this investigation and the reports of the accountants employed by the Attorney-General's Department were placed at the disposal of this Committee and the Committee had the full advantage thereof. As these reports were exhaustive and complete and had been procured at a large expense to the State, the Committee has availed itself thereof, thereby saving the cost of an independent investigation and accounting.

At the request of the Committee, the firm of M. & L. W. Scudder, the accountants employed by the Attorney-General, for a small retainer agreed to and did bring their investigations down to December 1st, 1916, with a supplementary report and placed themselves and their firm at the service of the Committee as a public service. Therefore, the Committee has not only had the use and benefit of the Scudder audits of the Butter and Egg Exchange and the commission men and produce dealers connected therewith, but have had the aid and assistance of Messrs. M. & L. W. Scudder in explanation thereof, when required. This statement is made in acknowledgment of the cordial co-operation received by the Committee from the said firm of M. & L. W. Scudder, certified public accountants.

IMPORTANCE OF THE QUESTIONS INVOLVED

We believe it is the first time that a legislative committee has been constituted with authority and power to investigate fully into the conditions surrounding the production and distribution of agricultural products in this State. We have not been able to learn that any other State bodies or legislative agencies have attempted a similar investigation. Various municipal inquiries have been had on some of the questions involved and various phases

of these matters have been looked into from time to time by State agencies or public bodies but lacking the authority and equipment to make complete investigation of the subject or to bring together all the related matters in a comprehensive survey.

Into the work of such a survey the Committee has entered and has proceeded as far therein as the period that has elapsed from the date when its funds became available until the date of this report has permitted. It has not been able in that time to cover the entire field; in fact, it has only been able to cover a small part of it.

APPOINTED HEARINGS OF JOINT LEGISLATIVE COMMITTEE

The Joint Legislative Committee, with a quorum present, held sessions for the taking of testimony at the following dates and places:

- June 27, 1916. Chamber of Commerce Rooms, Utica, N. Y.
- July 6-7. New York State Agricultural College, Ithaca, N. Y.
- July 10. Court House, Cortland, N. Y.
- July 11. Court House, Elmira, N. Y.
- July 12. Court House, Owego, N. Y.
- July 13. City Hall, Binghamton, N. Y.
- July 14. Court House, Norwich, N. Y.
- July 18-20. New York State Agricultural College, Ithaca, N. Y.
- July 25.. Senate Judiciary Room, Albany, N. Y.
- July 26. High School Building, Cobleskill, N. Y.
- July 27. Court House, Delhi, N. Y.
- July 31. City Hall, Watertown, N. Y.
- August 1. Town Hall, Antwerp, N. Y.
- August 2. New York State Agricultural School, Canton, N. Y.
- August 3. Town Hall, Massena, N. Y.
- August 4. Court House, Malone, N. Y.
- August 7. Chamber of Commerce Rooms, Utica, N. Y.
- August 8. Court House, Rome, N. Y.
- August 9. City Hall, Oneida, N. Y.
- August 10. Court House, Syracuse, N. Y.
- August 11. Court House, Oswego, N. Y.
- August 21. Chamber of Commerce Rooms, Utica, N. Y.
- August 25. City Hall, New York.
- August 29-30. Court House, Cooperstown, N. Y.
- August 31. Assembly Room, Hotel Bloomfield, Richfield Springs, N. Y.
- September 1. Town Hall, Clinton, N. Y.
- September 5. Court House, Auburn, N. Y.
- September 6. New York State Experiment Station, Geneva, N. Y.
- September 7-8. Court House, Rochester, N. Y.

- September 25. Hotel Utica, Utica, N. Y.
 September 26-28. City Hall, Buffalo, N. Y.
 September 29. City Hall, Lockport, N. Y.
 September 30. Court House, Jamestown, N. Y.
 October 2. City Hall, Olean, N. Y.
 October 3. Court House, Belmont, N. Y.
 October 4. Court House, Hornell, N. Y.
 October 5. Court House, Warsaw, N. Y.
 October 6. Court House, Geneseo, N. Y.
 October 10. Court House, Lowville, N. Y.
 October 11. Village Hall, Boonville, N. Y.
 October 12. Court House, Herkimer, N. Y.
 October 13. Court House, Fonda, N. Y.
 November 14. Court House, Kingston, N. Y.
 November 15. Court House, Poughkeepsie, N. Y.
 November 16. Court House, Middletown, N. Y.
 November 21, November 22, November 23, November 24, November 27, November 28, November 29, December 4, December 5, December 6, December 7, December 8, December 9, December 11, December 12, December 13, December 14, December 15, December 16, December 18. Assembly Rooms of the Merchant's Association of the City of New York in the Woolworth Building.
 December 19-21. Committee Room in the Murray Hill Hotel, New York City.

AID AND ASSISTANCE RENDERED THE COMMITTEE

The Committee early appealed for aid and assistance in this work to various public agencies in the State concerned therewith. It desires at this time to acknowledge the co-operation, advice and aid extended to it by the New York State College of Agriculture at Cornell University; the State Experiment Station at Geneva; the New York State School of Agriculture in connection with St. Lawrence University; the Department of Agriculture of the State of New York; the Board of Health of the City of New York; through the teachers and experts connected with the work of those institutions, all of whom when called upon have cheerfully given their time and labor and the full benefit of their knowledge and experience to the work of the Committee. In connection with the recording, collecting and tabulating the cost of milk production, it has received extremely valuable aid and assistance from the various Farm Bureau agents employed throughout the State. At the stated hearings enumerated, there appeared in the agricultural counties large numbers of farmers engaged in the production of dairy products, live-stock and poultry. The number in attendance



ASSEMBLYMAN
WALTER W. LAW, JR.



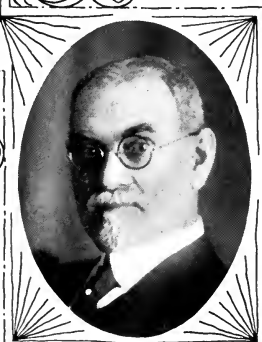
ASSEMBLYMAN
DANIEL P. WITTER



ASSEMBLYMAN
H. EDMUND MACHOLD
VICE-CHAIRMAN



SENATOR
MORRIS S. HALLIDAY



SENATOR
N. MONROE MARSHALL



ASSEMBLYMAN
FRANK J. TAYLOR



ASSEMBLYMAN
HENRY L. GRANT



SENATOR
DANIEL J. CARROLL

To Your
Attention



JAMES C. BRONNER
ASST COUNSEL



DANIEL F. BREITENSTEIN
SERGEANT-AT-ARMS



JUDGE GEORGE W. WARD
COUNSEL



C. L. GRANT
SECRETARY



GLENN WICKS
CLERK

THE
NEW
AMERICAN
DICTIONARY

varied from twenty-five to three hundred. These men were the actual producers and gladly took a part in the work of the Committee and fully and fairly placed at its disposal their experience and the conditions under which they work.

LIVE-STOCK

Because more pressing problems presented themselves to the Committee and fully occupied the time allowed it, the Committee has not entered upon a survey of those branches of the live-stock industry which pertain to the breeding, rearing and sale of beef cattle, horses or hogs. The question of sheep raising in this State and the production of lambs, mutton and wool, was one in which the farmers coming before the Committee were greatly interested, and this matter was forced upon the attention of the Committee at an early date, although the more pressing problems of the milk situation has prevented the Committee from giving to this subject the time and the attention it demands. Nevertheless, the Committee is convinced that the problem is an important and pressing one which demands remedial legislation at this session of the State Legislature. It may well be said that there is no sheep industry in the State of New York at the present time. In view of the agricultural history of this State, this is an unpleasant admission to make and a condition which must necessarily be regretted by all the people of this State. This situation explains in part the high cost of living, of which our people are bitterly complaining. It explains in part the shortage and consequent high price of necessary and valuable meat foods and fabrics. The problem is not one peculiar to the State of New York, but to the United States as a whole. Reliable figures are presented to this Committee which show that between the years 1909 and 1915 the production of wool in the United States fell from 328,000,000 pounds to 288,000,000 pounds — a loss of twelve per cent. in seven years. This result was brought about in the face of a rapidly increasing population and a constant increased demand both for food stuffs and fabric material. In the last fiscal year, out of a total of 591,015,495 pounds of wool available for consumption in the United States, nearly 300,000,000 pounds were necessarily imported. These

statistics show likewise that the world supply of wool decreased as follows, viz.:

1912.....	2,971,000,000 pounds
1913.....	2,888,000,000 pounds
1914.....	2,872,000,000 pounds
1915.....	2,836,000,000 pounds

The decreasing supply of meat stuffs supplied by the sheep industry and the consequent high prices is too well known and appreciated by everyone to need statistics to impress upon us the necessity of taking such steps as will, if possible, restore this industry to the State of New York. In the United States, the figures show that the number of sheep decreased in the last six years by 3,500,000; in the last year by 765,000. Reliable figures are presented to the Committee which show that there are upwards of five million acres of land within the boundaries of the State of New York adapted to the raising of sheep. If the industry can be protected and made to flourish, this land should sustain in the neighborhood of ten millions of sheep, producing in value in food stuffs and wool annually a sum approximating one hundred millions of dollars. Nevertheless, the history of this industry shows in a clear and remarkable manner how easily a great agricultural industry and one of vital importance in furnishing food and clothing to the population may be lost. The federal census of 1850 showed in the State of New York 3,453,241 mature sheep — the second largest number of any state in the Union. The agricultural interests of our State for 1867 stated the number of sheep in the State to amount to 5,350,000. In 1916, the enumeration only finds in this State of New York the following:

In New York State

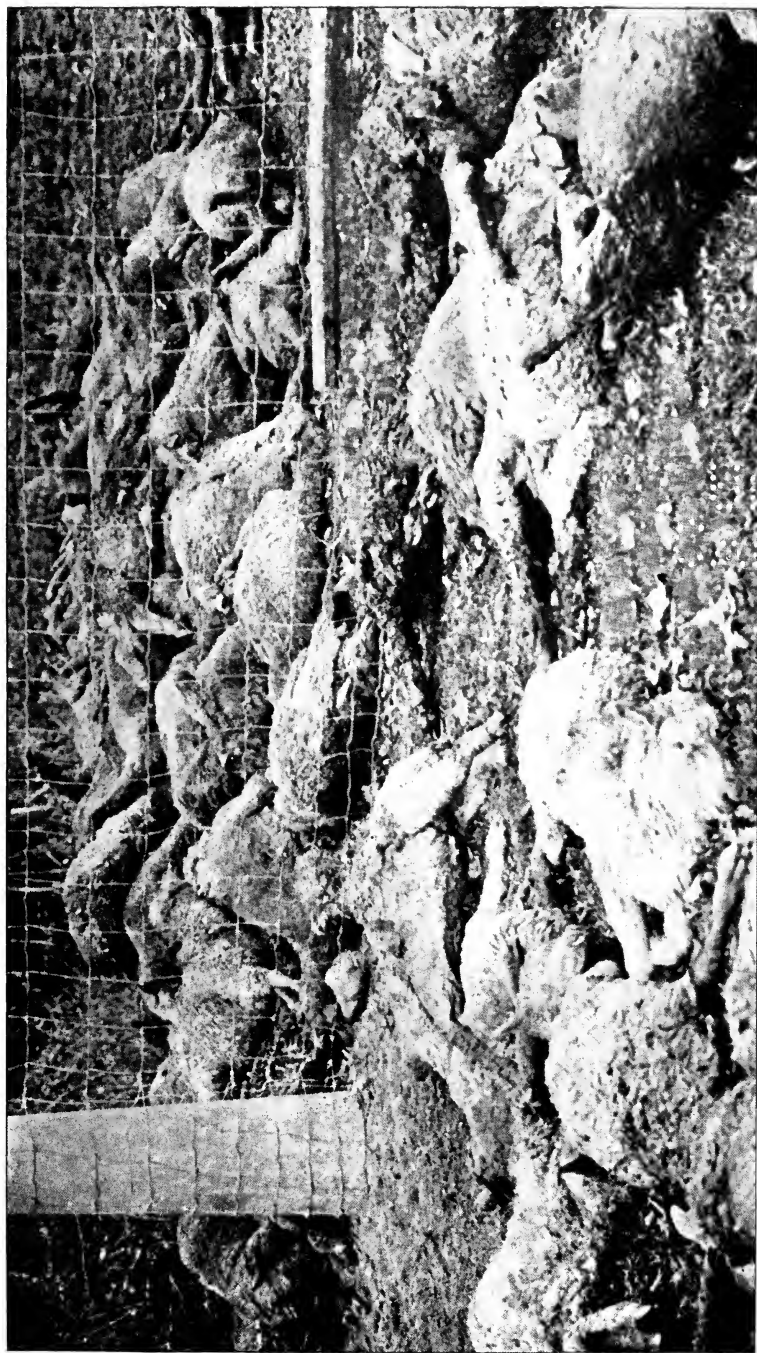
Sheep one year old and over.....	350,088
Lambs under one year.....	144,971
	<hr/>
Total.	495,059
	<hr/>
Decrease.	4,854,941
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Thus it conclusively appears that the sheep industry has departed from the State of New York during comparatively recent years. Various explanations may be advanced for this result. It is probably true, as numbers claim, that during the years from 1880 to 1900, the prices paid to producers for lamb, mutton and wool were not sufficient to yield a fair labor and capital return, and that producers abandoned the industry largely for that reason, but for several years past that reason no longer prevailed and one might naturally expect that the past five years would have shown a steady increase. We believe the contrary to be the case. It is very probable that the art of sheep husbandry has been largely lost to the State with the loss of the industry itself, and that this art must be again made common knowledge in our agricultural communities if the industry is to be restored. Notwithstanding these problems, it nevertheless is undisputed that for many years prior to the practical disappearance of the industry from the State, an unnecessary burden was imposed upon it by the depredation of dogs, and those interested citizens who are attempting as individuals to re-engage in this industry and bring it back to the State declare, in all sections of the State, that their aims cannot be accomplished unless the State provides such laws as will secure their flocks from destruction by the army of stray and worthless dogs that infest the various communities. They state a proposition, with which this Committee is constrained to agree, that if the State of New York can protect the red deer in the forest from the ravages of dogs, it is equally able to protect its flocks of sheep from destruction by these animals. We believe it will be impossible to interest the people of this State in restoring sheep husbandry and in the building up through several years of fine flocks of sheep unless they are assured that the flocks will not be destroyed by dogs, as in the past. We desire particularly to impress the point that compensation by the State or town for a destroyed flock is of no benefit at all to the industry as a whole. It places a bounty on destruction. For instance, Farmer A. purchases some expensive and fine bred animals, from which to build up a flock of sheep for his farm. If he does not himself remember the art, he procures from Canada or elsewhere a competent shepherd and one versed in the care and management of these animals.

Presently the stray curs of the neighborhood ravage the flock. Some of the finest animals are destroyed, the whole flock frightened, demoralized and seriously injured. He receives compensation, in part or in whole, and tries again to build up on the remnant. Presently the flock is raided again with the former result and practically or entirely destroyed. Again compensation is made and the farmer disgusted and discouraged turns the remnant, if any, over to the butcher and abandons the business. So we have the situation, instead of this group of fine-blooded animals furnishing a center for the spread of the art and industry in the neighborhood, it is snuffed out by the dogs with the co-operation of the State. The State loses both the money and the sheep. The Committee has heard this story time and again during its sessions from deeply earnest and interested men. It appears to this Committee far more preferable to eliminate from this State all its canine population than to permit these animals to be a burden upon the men who desire to re-engage in sheep husbandry and possibly to prevent the restoration of this art and industry so important to the welfare of this State. We add some extracts of testimony presented to us covering these matters.

FLOYD CORTWRIGHT, of North Chemung, called as a witness before the Committee, testified:

"There is a great drawback through the country with people raising sheep. They get chewed up so much with dogs. They don't get their pay for a great many and don't keep sheep on that account. The liability to attack by dogs is an actual peril to the sheep raising business. I have not myself encountered serious loss, but on many occasions my neighbors have. There isn't so many flocks of sheep in Chemung county as there was twenty years ago—probably isn't more than one-quarter the number of flocks. In a radius of six miles from my place there may be twenty flocks at this time, ranging from ten to fifty. Twenty years ago, in the same territory, there were eighty flocks at least. We are engaged in the production of wool and lambs and mutton. We do find trouble here in hiring competent persons and men who understand sheep husbandry. If I increased the flock that would be a great trouble to me. I think they are about the best paying stock there



Sheep killed by dogs, part of a flock of 192 head in Calhoun county, Michigan, killed in a single night by two dogs. Few of these sheep were bitten or maimed; they were simply run to death. (Illustrated by courtesy of the Breeders' Gazette)

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is at the present time. It pays much better than dairying. I have about fifty sheep. My gross income from this flock in 1915 was around \$400. That would be about \$8 per head gross income from wool and lambs. I raise the grain for the sheep on the farm. I had to buy grain for the cattle. I only fed them a small amount of oats during March and April. That was to the ewes to make them strong for the lambing time. They do not require a large grain consumption. In 1915, I got 29½ cents a pound for the raw wool just sheared off for the year. This year, it is 40 cents. Back in 1912 or 1913, it was about 23 or 24 cents. At 23 and 24 cents there was a profit in the sheep more than in dairying. This flock of fifty sheep would not require over thirty days of labor of one man for the herding, shearing, washing and caring and feeding the sheep through the year. That would not include the first fencing. You cannot make a dog tight fence. The effect of pasturing the sheep for a series of years is to improve the land. Of course, the dairy cows cannot feed after the sheep. I think if this dog matter were taken care of in a way that people would feel that the sheep wouldn't be eaten up with dogs that many more people would go into the sheep business. More people would keep sheep out in these hill regions. I have known many instances of attacks where the damage amounted, as allowed by the fence viewers, to \$120, some of \$80. The dogs kill a number of sheep in one night. I have known as high as twenty sheep from one flock being killed. It ruins the rest of the flock also. A herd of sheep once chased by dogs is never worth much. I keep graded Shropshires largely with a pure bred ram. I usually average about a lamb and a quarter per ewe; that is, I would have something over sixty lambs from my flock of about fifty ewes. I cut about six pounds of wool from each sheep. You can keep about seven sheep, I figure, at the same cost for food and labor as one dairy cow. They use largely coarse fodder, hay or ensilage. The dogs just kill them, let them lay and they will go back and feed on them later. They are mostly dogs that are kept by people who really are not able to take care of them and those dogs forage a good deal and work into the sheep that way. A good dairy dog will seldom take a run out of the sheep."

LUCIUS E. WICKS, of Owego, N. Y., called as a witness before the Committee, testified:

"The town of Owego has paid for several herds of sheep destroyed by dogs during the past year. Since the 15th day of November, 1915, we paid out \$387 to the owners for sheep killed by dogs on the fence viewers appraisal of the damage done. The damage done by dogs has materially interfered with the sheep industry in this section. A great many more farmers would keep sheep if it were not for the fear of the dogs getting into them and destroying their herds. In the year 1914, we paid out \$138.08 for sheep killed by dogs. In 1915 we paid out \$250.10 for sheep killed by dogs. From November, 1915, up to May 20th we paid out \$387. We have in this town a dog tax, \$1 for a dog, \$2 for every additional one, and \$4 for a bitch, but we are not able to collect the tax. They don't collect the dog tax. The dog proposition is a bad one in the sheep business. The dog tax in our town did not equal the amount of money paid out and it had to be taken out of the general town fund. We did not collect more than \$200."

RANSOM L. LEONARD, of Owego, N. Y., called as a witness before the Committee, testified:

"I have a farm of 160 acres and keep a dairy of 22 cows and 50 or 60 sheep. We rent a good dairy pasture which allows us to carry so much stock. I have kept sheep for thirty years. The keeping of sheep on these cheap lands is a good proposition for the farmer if you can keep the dogs away from them. During the last two years, we have had serious losses. Previous to that, we ran along quite a number of years without much loss — just two or three, or something like that killed annually. But two years ago after we turned our ram in the dogs got at them the very first night and they killed thirteen outright and they chased those sheep over that pasture, and if you know what that means to give the herds a night's run, which we found they did, you know something about the damage. How many were lost indirectly, I don't know, but during the winter I should say six or eight or nine head more as a result of this night's chasing. We endeavor to take good care of them and not lose them. We have been at it long enough so

that we think we know how to handle sheep and if they are not dogged and chased and bit and run, we feel pretty safe, but when you get a mess of dogs in a lot it is something beyond me to pick out the sheep that are going to winter through. Last fall, a year ago, we had one two-year-old ewe that had a front leg gnawed off. One got well and was sold for market. Others that were chased and bit the least bit, some in the neck that you could hardly detect, didn't amount to anything. I consider that the frightening of the sheep when chased by dogs is practically ruinous to the flock. The fence viewers allowed us \$50 for that a year ago last fall. Our damage was at least \$150. Our sheep were not full-bloods, but we tried to get ewes that will raise a lamb and a half or better and eight pounds of wool. That is the goal we work toward. When we get a flock of sheep that the dogs are kept away from, we can do that, but we cannot do it unless we give them good care. We do keep a pure-bred ram. Our buck we paid \$25 for and the best sire I ever saw, not the best sheep, but the best sire. He is alive yet, but he isn't worth a dollar because four or five days after he had been turned into the flock in a new pasture, the dogs ran them a second time. We went over to the pasture on Monday morning and found seven dead ones. Three of the ewes were lost out of the pasture and we did not find them for a week. They were lame and gaunt but not bit. The whole herd were worried and run and chased. As I say, we were allowed \$50 for that job and we haven't got our money yet. I have been so disgusted with it that I have never asked for it. This chasing damage last year was the worst we ever had. If we could rent pastures that are lying idle and you would keep the dogs away from our sheep, we would have fine flocks, but we cannot raise sheep with these dogs running loose and I don't know just what we are going to do with our hill farms. We have bells on about half the sheep. A neighbor went down to the pasture the other day, went down into a ravine and in a few minutes along came a hound and two shepherds, looking first one way and then the other. They didn't happen to do any damage, but went about their business. They generally work in pairs or threes. I know if I have a sheep that gets out of the pasture and goes over on my neighbor's line, he notifies me and I must go and get it and if I don't he either sues

me and I have to settle, but the dogs go right through our pasture and we cannot stop it; there are no marks on them to control them, and it is their nature to chase sheep. Wool at 25 cents a pound is a good business, in my opinion. It was a good business even when wool was below 25 cents a pound."

CHARLES W. LARMON, connected with the Agriculture Department of the State of New York, called before the Committee as a witness, testified:

"We had a question sent out to all the Farm Bureau agents. With few exceptions the answers were something like this: 'I think that the dog problem keeps a great many farmers out of the sheep business and the reason is that most of the flocks suffer serious damage from time to time,' or 'many farmers would keep sheep or add sheep to their business if it were not for dogs.' Our records show that a town in Washington county paid for damage in 1912, \$762; 1913, \$391; 1914, \$148; 1915, \$208; the last two years being under the Registration Law, when the dogs that did this damage were traced to other towns. There is the difficulty of making the town the unit. During the last two years mentioned, this town had a dog registration law, but the supervisor who was responsible for that law was defeated, 'it was said by people who lived in the back districts and not interested in the sheep industry, but owned dogs.' Of course, an increased tax does not keep the dogs from killing the sheep, but it tends to reduce the number of dogs and a man who keeps three or four, if he is obliged to pay a high tax on them, will get rid of the dogs. In my opinion, it is not effective to make the town the unit as has been shown; the dogs will invade the flocks from other towns. The State should be the unit. We had a bill last year which proposed to make the owner responsible for all damage done to domestic stock by a dog, to give the owner the privilege of destroying any dogs seen harassing his flock or any live-stock, whether licensed or unlicensed. The people interested in the development of the sheep industry in the State say to us that the only effective remedy will be to require the owner of dogs to keep them secured or shut up during the night, just as they would other live-stock during those hours when great danger and damages were done."

Professor HENRY M. WING, of the New York State Agricultural College, called before the Committee, testified:

"The most obvious fact with respect to the sheep industry is that it is greatly on the wane in the State of New York. There were in round numbers 1,750,000 sheep in the State of New York in 1900. This had been reduced to 930,000 in 1910. These are the census figures. It is obvious that there must be some reason for that. Various reasons are assigned and you ask a general farming community about it and almost universally they will say it is the difficulty from dogs, but I was inclined to the idea that the number of sheep had declined simply because other lines of agricultural industry have proven more profitable. We have a herd of sheep in connection with the Agricultural college. Up to two months ago I could have said that we had not been troubled, but we have had dogs in the sheep in the last two months — the first time it has happened since I have had charge of the flock. Our fences are rather more carefully and strongly built than the average farm sheep fence, but we never have taken precautions to put them up at night. The dogs in the last two months have killed nearly twenty — eighteen, I think, is the exact number. They have been in the herd three different times. If I were an ordinary farmer developing a flock of sheep, that result would be rather disastrous to my hopes. It is certainly logical if the State protects the deer by not allowing dogs to wander at large in the deer forest or even to be free in the deer forest, that they ought to exercise equal care towards the sheep. I do not think dogs have any practical use on a dairy farm. Good dairying does not require dairy dogs. The dogs almost do as much damage to the dairy as they do the the sheep. Flocks of sheep that have once been chased by dogs are not likely to be worth much afterwards. It practically ruins the flock, especially at certain periods."

J. F. EASTMAN, of Binghamton, Farm Bureau agent for Broome county, called as a witness before the Committee, testified:

"There is in this county considerable hill land. It is rather low in price. Some would not bring more than \$5 an acre. I think the sheep industry, if properly protected, would have a profitable

place on these lands, but you would have to do something about the dog question. That is the drawback that has driven a great many sheep men out of business. If the sheep could be protected against harm as easily as the cow or the horse, a great many more sheep would be kept on our cheap lands. It costs a man \$100 to have a dog loose in the Adirondack forest fifteen minutes, but he can have a dog loose on a sheep farm without costing him a cent. In other words, we protect the deer better from being hounded than we protect the sheep."

CHARLES STARK, called as a witness before the Committee, testified:

"I live in Pawling, N. Y. The farm I live on I was born on and worked on when my father died. He supported it; gave me half and my son half. My son went into the sheep business in a small way. He bought about twelve or fifteen sheep and sold the old ones and kept the lambs and had got a very nice flock of sheep, up to 41 sheep. He had a thoroughbred ram we got from Wardville and he was very proud of his sheep. One night last October he had 41 and in the morning he found 26 of them jammed around the barn and the stock pen, tore up and spoiled and gone, and the others were destroyed. He had to get rid of them, so there he was, out of sheep business in the turning over of your hand. No redress. We have had the same experience with a neighbor, only the neighbor is still in the business as he had about 25 of his killed, but they were scattered over more and he saved a good share of his flock. My son received from the board of supervisors about \$6 apiece. Even though he received the full amount for the sheep killed, it wouldn't cover the amount of loss, as it put him out of business and he was proud of his sheep. They were doing very well, and with him it was chickens and sheep and not so much milk business, and he thought he had solved the problem of making his farm a success. He was making good on the chickens and on the sheep and it was pretty hard to go to bed at night and wake up in the morning and be put out of the sheep business. The experience we have had is that it is very seldom the neighbor's dogs. They have a tendency to go a long distance from home to kill the sheep; that was the case of Neighbor Hooker.

He shot one of the dogs and did not kill it and it escaped in the brush and was discovered cutting over the mountains five or six miles away. They could not follow it up."

JOHN McNAMARA, called before the Committee, testified:

"I live in the town of Warren in Herkimer county. I have stopped making winter milk and am going to make summer milk and get some sheep. The only trouble is the dogs. Within six weeks the dogs have practically destroyed four fine flocks in our town. Every boy has got a hunt dog and a bird dog and the mother has got a pet dog. I believe, with Professor Warren, that a good dairy dog does more harm to a dairy than a bad dog does to a flock of sheep. A dog ought to be shown no favor as a dairy proposition. In order to bring back the sheep industry in my locality, there has got to be some law framed that will protect them. I have got a pretty good account and have figured on getting some new fencing and about four weeks ago I drove down into the town of Maryland and bought 22 sheep at \$6.25, and lambs together. I bought the bunch as they ran. I am going to learn how to take care of them."

CLARK ALLIS, of Medina, Orleans county, testified:

"I had at one time 500 breeding ewes, but attack after attack by dogs, both worthless curs and upper crust dogs, have cut me down to under 200 ewes. Some years, dogs have been in my flock four times, and I am behind two years now on claims against the town, and there is no money to pay mine or other claims. The Wells Brothers near me were in the spring or winter lamb business. A couple of years ago the dogs got into the flock just before the ewes were put into the barn for the winter. Most of the lambs were born dead. This practically ruined their valuable flock of sheep. In October, 1916, my sheep were lambing. The dogs killed five lambs one night. Eleven were born dead within a few days and many of the ewes will never be worth anything except for what wool they had. I have had sheep bitten by a dog with rabies and had the sheep go mad. I have had as high as 32 killed

and bitten one night. My best friend was bitten with a dog with rabies. I have been bitten four times by worthless curs. The town of Ridgway, Orleans county, has over four hundred dogs and only 100 are licensed. The dogs are mad; the sheep are mad, and Clark Allis is the maddest one in the whole bunch. In 1914 and 1915, the town of Ridgway had over \$1,200 dog damage to sheep. A brindle bull dog figured in every deal where any dogs were seen, but no one could kill him or find whose dog it was for months. The town still owes me for that year. Is it right or just, and can we keep sheep in New York under this situation?"

WINFIELD S. PECK, of North Norwich, Chenango county, called as a witness, testified:

"I had a herd of 130 sheep one year, but the dogs chased them and our own dogs would go out and kill somebody else's and we had to pay them and finally we went out of the sheep business and went into the dairy business. I do not think if we regulated the keeping of dogs it would bring back the sheep industry to this section, as it requires too much care to raise lambs and wool and keep them flourishing. This section is better adapted to the dairy interests. That is what we want to follow."

J. G. WARD, of Franklin, Delaware county, called as a witness, testified:

"There are very few sheep in our county. It is pretty hard to fence against them and the dogs bother them. If the dogs did not bother them, I think it would be a profitable proposition."

J. P. DOIG, of Meredith, Delaware county, called as a witness testified:

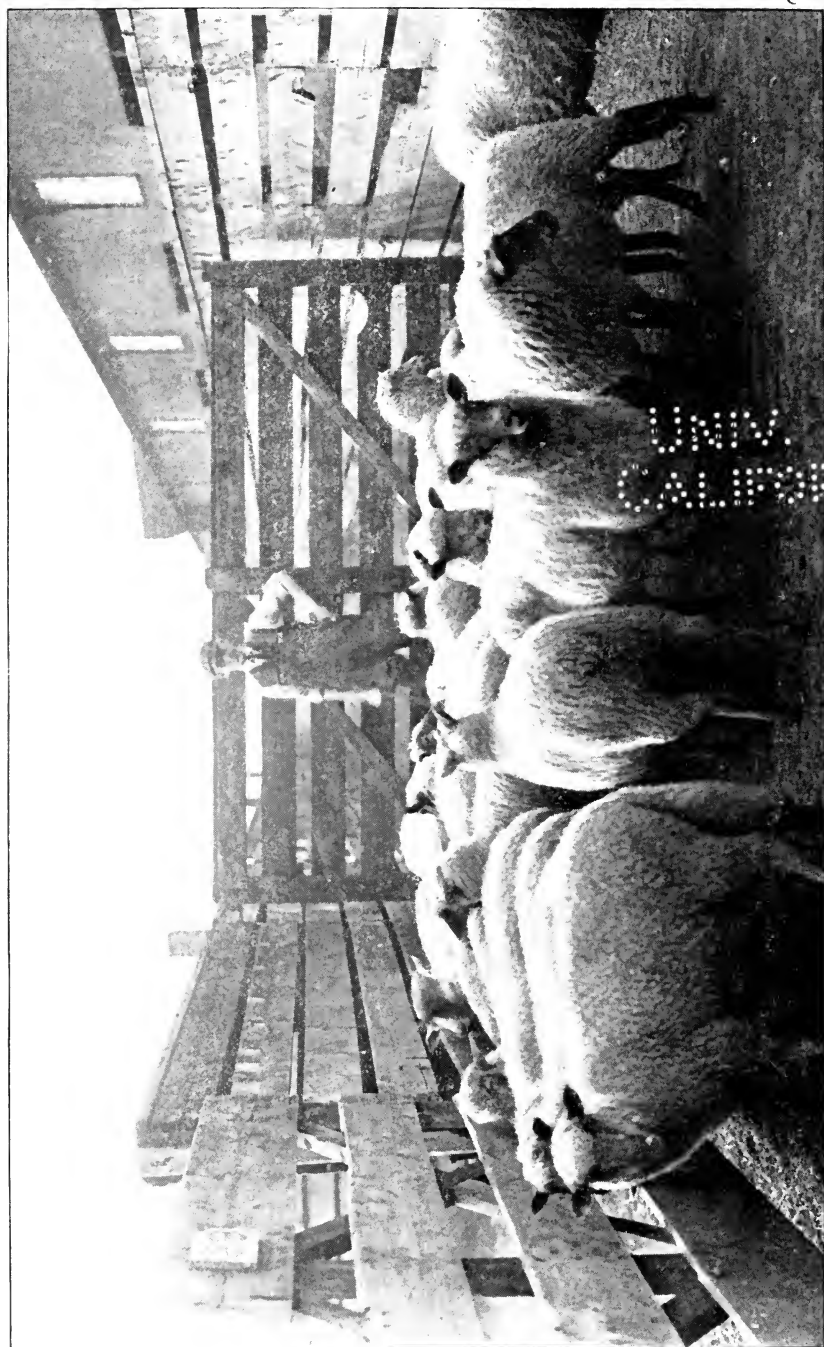
"I always kept a few sheep until two years ago. Then my fences could not hold them. They were wiser than I was and wandered over the place. I got more clear money out of the few sheep I had than anything I had on the farm, but they got so wise they would travel over the whole farm at night and be back in the

lot in the morning, so I sold them. They showed an average profit better than dairying. I had nothing on my farm that I could get more clear money from than I had from those few sheep. There is no sheep at all in my neighborhood now."

EMMETT A. COOK, of Hornellsville, N. Y., called as a witness before the Committee, testified:

"I have 31 sheep at the present time. In the spring I had 57. The dogs got in them in the spring and slaughtered a lot of them in May. I don't know whose dogs they were. They had been in my flocks once before about four years ago and killed about 30 or 40 per cent. of them and ruined the flock then, and they ruined the flock this year. I put in a claim to the supervisors and got \$10 a head for breeding ewes, and \$8 for rams, by way of damages. They tore up seventeen one morning about six o'clock; two dogs, I caught them at it but could not identify the dogs. The ewes were high grade Shropshires. The flock is ruined for a year or two nearly. Of course, they allowed us something for that damage; I was allowed \$308 for the 17 ewes and the lambs and damage to the flock. I had a registered buck that was killed. I don't know of any dogs in Steuben county that are worth anything. If a man would come along and offer to buy my flock at the same prices allowed me for damages I would not desire to sell. I was tempted to sell them all out for a short time, but I have gotten a little more grit than I did have and have bought a few more and am going to stick to it. There is better money in sheep farming than in dairying at present prices. My farm is a sheep farm, fenced with woven wire fences that cost 25 to 35 cents a rod for the wire. I had my own posts. A dog law that would satisfy the sheep men would be a law compelling every man to muzzle his dog and know where he is at all times. I would like to see a law that prevented dogs from running at large unless accompanied by the owner. There are efforts being made by the sheep farmers but they don't seem to go. Sportsmen can get everything they want, but the farmers don't get anything they want. Our board of supervisors did the best they could four or five years ago; they passed an ordinance that they should register the dogs and pay

a tax. It is enforced some. The city dogs are the ones that do the trouble. I don't think it is the dairy dogs, but the mongrels from the town. If the law were enforced by State authorities it would be better. There are only one or two other flocks in our whole town. Ten or fifteen years ago, nearly every farmer had a small flock, but they were driven out in discouragement by the havoc committed by the dogs. Two-thirds of our town is better adapted to sheep raising than anything else. Every man, or nearly all of them, would be in the sheep business to-day if it were not for the dogs. A law that gave me the right to shoot, on sight, every dog not accompanied by its owner would not improve my condition, as I do that now. If we had a State constabulary with a provision that the State officer should execute any dog wandering at large it would be a good thing, but it wouldn't make much difference up our way, we do that anyway, but that is not the protection. You have got to reach into those towns where the dogs come from. If there were no dogs in the cities, there would not be much harm done. We place them in the city nearly every time we catch them at it; bird dogs and hounds and mongrels of all kinds; there doesn't seem to be much difference in the breed. The dogs that destroyed my flock the last time were in them about an hour, as near as I can learn. A neighbor heard them and caught them at it and notified me. They just kill them for the love of killing; tear them all to pieces. I say that the vagrant dogs have driven the sheep industry practically out of this county. In the old days when everybody had sheep our markets were full of lamb and mutton that could be bought very reasonably, but it was a good business even then. It was a good deal better now, but the people that work in those factories in Hornell cannot go into the market and find plenty of mutton and lamb there throughout the year at a reasonable price. The price they pay now is very high, so that those city dogs cost their owners good hard money every year in the consequent high price of lamb, mutton and clothing."



Protected by a dog law, hundreds of thousands of sheep would graze on New York State's lulls in place of a few scattering flocks

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LEWIS F. ALLEN, a sheep raiser of Macedon, Ontario county, N. Y., gave the Committee the following statement:

"My sheep story is a deplorable one. We wanted to keep 100 breeding ewes on the farm and had a good start with 58 registered Shropshires. The dogs attacked them first August 20, 1916, and on four other occasions between that date and January 6, 1917, when the last attack occurred. I have tried everything from watching all night a great many nights to keeping them closely housed. On January 6th, the dogs dug a hole under the shed door and killed five breeding ewes. Our total loss since August 20th is 34 head of registered ewes; 12 of them were ewe lambs — the rest, all bred ewes or ewes with lamb. The loss in our county in 1916 is the greatest we have ever had, and the loss for that year is not included in the abstract of dog damage which I have made and added to this statement. The loss for the year 1913 also is not included in the following statement. We are literally over-run with dogs of every description during the days when hunting pheasants is permitted, and the sheep are on the run most of the time on these days. The damage to sheep, especially in hot weather, must be attended to at once as flies soon attack wounded or killed sheep and it is necessary from a sanitary standpoint to promptly dispose of them. The dogs from the city of Canandaigua are responsible in a large measure for the damage in the town of Canandaigua, and the dogs within cities of the third-class, at least, should be included in any proposed measure which is designed to protect the sheep. Give the farmer at least permission to kill a dog found at large upon his farm without license tag attached. This county is infested with dogs and unless some way is found to decrease the number sheep raising will be a lost art. In our county the number has decreased from 100,000 in 1900 to 35,000 in 1915. An industry at least worth \$350,000, even at this day, is being ruined by a few thousand dogs worth nothing to the human family. I append a statement of the amount of money paid out by the taxpayers of Ontario county by towns from the years 1900 to 1915, excluding, of course, the year 1913 and the year 1916. The records of the towns show payments in the following sums:

Bristol.	\$1,310 75
Canadice.	531 75
East Bloomfield	1,601 50
Canandaigua.	4,998 75
Farmington.	1,949 00
Geneva.	339 50
Gorham.	1,039 50
Hopewell.	414 00
Manchester.	2,080 00
Naples.	432 75
Phelps.	1,004 25
Richmond.	1,192 83
Seneca.	1,244 00
South Bristol	995 50
Victor.	2,673 25
West Bloomfield	999 75
<hr/>	
Total.	\$22,811 08 "
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Space does not permit the Committee to accompany this report with more testimony of similar nature. The evidence taken by the Committee upon these hearings and upon all the subjects touched upon in its work is contained in thirteen volumes consisting of approximately twelve thousand pages, and evidence of a similar nature appears in many places in those volumes. The purpose in presenting these extracts from the testimony is to present the problems in the language of the witnesses and merely to show the nature of the testimony. The testimony here quoted or summarized is corroborated by numerous other witnesses. The flock at Cornell University and at the Masonic Home near Utica were both ravaged last season.

It seems an inevitable conclusion from this testimony that if the dogs, or the lack of protection from dogs, is not the direct cause of the loss of the business of sheep husbandry in this State, that at least the failure of the State to provide an adequate dog law imposes a serious burden upon the industry and interposes a serious obstruction to the restoration of the business. To longer permit the ravages of an animal of so little economic value as the stray dog to prevent the farmers of the State engaging in a profitable industry and one which inevitably brings great wealth to our people and provides an abundant supply of both food and clothing,

would certainly be a serious error. The Committee unhesitatingly recommends the enactment of a measure so drastic in its terms and with such ample provision for its effective enforcement that it will no longer be possible for any considerable group in a community to assert that the absence of sheep husbandry from this State is fairly to be attributed to the destruction of the flocks by stray dogs. In 1866, 1,068 sheep were killed by dogs in Delaware county and over 1,100 in Niagara county alone.

The United States Department of Agriculture, Farm Bulletin No. 652, makes the following statement:

Dogs the Main Cause of Decrease in the Number of Sheep

"Sheep-killing dogs are not only recognized as the worst enemy of eastern flockmasters at the present time, but are known to be the principal cause of so marked a decrease in the number of sheep kept on farms. The moral effect upon all persons who have seen sheep killed, injured, or frightened by dogs is far more destructive to the industry than the actual damage sustained. No farmer contemplating the raising of sheep is likely to venture on the enterprise while the flocks of his neighbors are continually meeting reverses through the attacks of dogs, as the ultimate financial losses following such reverses are incalculable. Dog depredations to flocks are not only disheartening and discouraging to the flockmaster, but they also break up breeding plans and render flocks restless and non-productive. The following extract from a letter published in an eastern farm paper is indicative of the fact that sheep owners are finally forced out of the business if attacks by dogs are long continued. It also expresses the general sentiment of sheep-owning farmers toward dogs:

'We have grown faint-hearted and joined the ranks of the sheepless. Only a few days ago the last of the sheep were driven off the farm. I watched those old Merino ewes and their foldy necked lambs walk down the road and out of sight and a lump came in my throat and the tears were not very far back.

‘Now these ewes, the remnant of the flock, are gone. Because we have lost interest? No; far from it. I would walk farther to see a good Merino than any other animal. Do we think tariff changes have permanently knocked the industry into a cocked hat? No; not that. We think the future is bright, and the golden hoof will be worth as much, perhaps more, as a woolgrower as in years just past, and we are planning to have the Merino again in the barn and pasture. The one reason for present abandonment would be shouted by thousands of shepherds if the question were put — just dogs? Old stuff? Yes; but it’s ever new to the sheepman of eastern Ohio, Pennsylvania and West Virginia, and to flock owners everywhere. The man who has walked out to his pasture to find dead, torn, bleeding, crippled and scared sheep will appreciate what I say.

‘Reclaim (a farm in Ohio) is bounded on two sides by small towns with a dog population of 200; 1 mile away on another side is another town, 2 miles away on the remaining side still another town, both with more dogs than people. We have found our sheep dead, found them with throats cut and legs torn off, found them huddled together in the farthest corner, found them scared out on the public highway, in our neighbor’s fields, and 4 miles from home. The foreigner’s dog has chased them. The neighbor’s dog has chased them. Dogs of all kinds seen and unseen have had a whack at our Merinos. “Why don’t you shoot them?” “Why don’t you keep your sheep near the barn?” “I’d poison the whole dog tribe,” and many like remarks are made by folks who don’t know. You who have had experience know that it’s no small task to bring the sheep to the barn at early dusk every night and to make frequent visits to the pasture by day or keep a musket strapped to your back or standing in a handy fence corner while in the field and at the head of the bed at night. It’s unlawful to scatter poison, and not altogether safe.

‘We read and write and legislate, debate and discuss, quarantine and inspect to stamp out tuberculosis in cattle. Like-

wise do we agitate over hog cholera and horse glanders. Our trees and plants are inspected, and we insist on investigations and regulations and the stamping out of various things. All this is good. But the dog that has done more to ruin an industry to which many men owe all they possess goes marching on uncontrolled and uninvestigated, throttling our choicest breeding ewes, chasing the calves, rushing through the hen yard and hog lot, carrying hog cholera on his feet, carrying stomach worms and parasites internal and external, spreading rabies, tramping over flower bed or back porch, practically unrestrained, enjoying undisputed rights, and all for what? Where is the man who can tell what great or good thing the dog family has done to merit all this? Why is it that dog laws are nearer dead letters than anything else on the statute books? * * *

'The dog owner always comes back like this: "My dog won't chase sheep." Oh, false or deluded man! The dog does not live with such good blood in his veins but what will develop into a sheep killer if given an opportunity. I have seen too many pairs composed of one mongrel and one pedigreed cur crossing the farm together to have faith in dogdom. We're hoping that the sheep and wool conference at Washington will be the beginning of great things for sheep husbandry. The dog was discussed, but no remedy prescribed. It's a sorry fact that custom has so overridden the law that the dog is still on top regardless of dog laws.'

The Habits of the Sheep-Killing Dog

"Sheep-killing dogs work both singly and in groups, but usually in twos and threes. They do not limit their attacks to the flocks of the immediate vicinity in which they are kept, but travel for miles in all directions, spreading destruction in the flocks with which they come in contact. Because their work is so often done under the cover of darkness it is almost impossible to catch them in the act of worrying the sheep, and hence they can seldom be positively identified.

“The ways in which different dogs attack and destroy vary greatly. Some dogs simply kill one or two sheep in a flock, while others continue the attack until all the sheep are either destroyed or crippled. In many cases where large numbers are killed they are neither bitten nor wounded, but simply chased until they die from exhaustion.

“After a dog has once formed the habit of killing sheep, it seemingly becomes a mania with him, and he is seldom, if ever, broken of it. He not only destroys sheep himself, but leads other dogs to the work. No consideration should be given such dogs; if additional losses to flocks from this source are to be avoided, they should be dispatched as soon as their habits are known.”

Estimated Annual Number of Sheep Killed by Dogs

“That dogs are a real hindrance to the sheep industry is not only acclaimed by the testimony of thousands of sheep owners whose flocks have suffered through ravages by them, but is verified by figures showing a conservative estimate of the partial loss incurred by flockowners during the year 1913. These figures, given in Table I, were compiled from the reports of county treasurers of different States, giving the number of sheep killed by dogs and paid for by the several counties during the year. Not all counties or States reported these losses, as in many cases no law existed which empowered the county to pay for sheep killed; for this reason it was necessary to compute the total loss on a percentage basis.

STATE	COUNTIES		Number of sheep in counties reporting (census 1910)	Number of sheep paid for in 1913	Total sheep killed in State at same ratio
	Total number	Number reporting			
Illinois.	102	72	809,274	1,347	1,920
Indiana.	92	25	314,539	3,045	12,749
Iowa.	99	76	877,039	8,026	11,429
Kentucky.	120	68	793,615	4,015	6,676
Maryland.	23	3	21,792	231	2,384
Massachusetts.	14	11	23,037	258	381
Nebraska.	93	40	112,506	45	153
New Hampshire.	10	2	8,110	56	290
New York.	62	10	180,261	298	1,446
Ohio.	88	51	2,123,324	9,619	15,561
Pennsylvania.	67	43	501,131	3,125	5,396
Tennessee.	96	25	272,627	100	286
Vermont.	14	2	15,794	56	415
Virginia.	100	56	494,799	2,873	4,355
West Virginia.	55	18	289,094	1,589	4,513
Total.	1,035	502	6,836,942	34,683	67,934

"Twenty one farm States not shown in the above table have 7,851,000 sheep. At the same average rate of loss these 21 States would lose annually 39,826 sheep, making a total annual loss for 36 farm States of 107,760 sheep.

"While the estimated annual loss in numbers of sheep killed by dogs shown in the table is seemingly small, in that it is less than 1 per cent of the total number of sheep in the farm States, it should be remembered that a 1 per cent loss on a business that is being conducted on a 5 or 6 per cent profit basis is serious and clearly cuts the average profits of all engaged in the industry by one-fifth or one-sixth of the total that should be received. But the actual loss incurred is undoubtedly far greater than is here given, as this partial loss is estimated only upon sheep reported as killed and paid for by counties; it is known that there are many killed which are not reported. Then too, this estimate does not take into consideration the retardation in the development of the industry suffered through prospective sheep men being kept out of it on account of the dog problem. As has been previously stated,

the ultimate losses from sources of this nature can not be estimated."

PRESENT STATE DOG LAW

The present State dog law is absolutely ineffective and fails in its purpose either to protect the flocks or to compensate the owners for sheep when killed. Practically, the State has no useful legislation upon this subject at this time.

Enforcement

Any dog law is valueless unless it carries with it by its own weight effective measures for its enforcement, which should be State-wide and uniform, except perhaps in the first and second-class cities.

Virginia Legislation

At the 1914 session of the Virginia State Legislature, an act was passed that dogs should not be permitted to run at large. It is a misdemeanor for the owner of a dog to allow the same to leave his premises unattended, and for dogs taxed by incorporated villages or cities to leave the city limits under like conditions. Any person is at liberty to kill a dog ranging or running at large unattended outside of the limits of a city or incorporated village. If this law is applied and enforced, as is said by the United States Department of Agriculture bulletin, the sheep industry can suffer no damage from dogs and losses from that source will be eliminated.

Proposed Law

A dog law should be enacted in this State: First, placing a license fee or tax on each dog, making it expensive to keep a worthless one; second, providing that a dog may be killed by any one, (a) when caught chasing or killing sheep or other live-stock or poultry; (b) when caught off the owner's premises unattended, ranging or running at large; (c) when not duly licensed. Also providing that dogs should be killed by the local authorities or the Department of Agriculture; (a) when it is established before a magistrate that the owner or harbinger has failed to pay the tax

and secured the license for the animal within the time allowed by law; (b) that within a period of four months prior to the complaint to the magistrate, the dog has worried or pursued sheep or other live-stock or poultry, or injured the same; (c) when it is proved before the magistrate that within a period of four months before the complaint, the animal has been permitted to range and run at large outside the limits of the city or incorporated village unattended or not under reasonable control. Third: In addition, the act should provide for an adequate fund and to promptly pay all established sheep damage claims.

The Philadelphia Wool and Textile Association has issued the following statement upon this subject, which is included in this report because of its statistical value, and the same is respectfully called to the attention of the Legislature. It seems to be a question of food and fabrics versus dogs. The Committee is of the opinion that it applies more emphatically to the State of New York than to the State of Pennsylvania:

More Sheep Vital Need of America

"According to statistics, the population of the United States consumes more wheat than any other country in the world, with the exception of Australia. According to the census of 1910, the meat-packing industry holds the first place among all the manufacturing industries of the United States in the value of product, and, according to the census, the output of the meat-packing industry of this country was valued at \$1,370,000,000.

"During a recent year the production of meats on the hoof on the American farm is given as 8,265,000,000 pounds of beef, 409,000,000 pounds of veal, 987,000,000 pounds of mutton and lamb, and 6,856,000,000 pounds of pork.

"The meat supply of this country is practically all domestic production, and an adequate supply of meat food is a vital necessity for our population. The increased cost for the table of meat products during late years has caused wide discussion and has affected the living expenses of every family. The cause for this advance in meat prices has been very widely attributed to manipulation by the big meat packers and they have been sharply criticised as being the cause of these higher prices. It is, however, the gen-

erally accepted maxim of trade that prices are regulated by supply and demand, and the careful consideration of statistics will show quite plainly that it is this law which has operated to advance the price of meats.

Cost of Sheep Rises

“To take up this question as it relates especially to sheep. In 1901 sheep sold on the hoof at 7 cents to 8 cents per pound, in 1915 at 12 cents per pound — and in applying this law of supply and demand it should be noted that, according to statistics, the number of sheep of sheep-bearing age in 1901 was 41,903,000, whilst in 1915 the number was 36,668,000, a decrease of 5,235,000, and that during this period the population increased from about 80,000,000 to 100,000,000; in other words, about 25 per cent.

“Of course, correlative to this situation as regards the meat supply from sheep, the supply of wool for clothing purposes shows relatively the same results.

“The need of our people for warm clothing made from wool is as imperative as their need for meat. There has been no time, even when this country produced the largest quantity of wool, that this production was sufficient to supply the needs of our people for clothing, and it has been necessary to import very large quantities from foreign countries to meet those requirements.

“The space of this article is not sufficient to go fully into details of the history of the wool production of this country, but it can be stated generally that the sheep industry has followed the lines of least resistance and that during its progress has shown the greatest production from time to time in sections of the country where there were available vast areas of cheap land not yet utilized for the production of cereal crops.

“The fact, however, can be stated briefly that it is apparent to those who are cognizant of the situation today that the wool industry has reached the height of its production in this respect, and we must now turn to the small farmers for assistance to increase our flocks.

“The development for the last few years has shown an alarming condition in regard to the decrease of our flocks, and it should be impressed upon every one that it is an imperative national econo-



The champion of the Dutchess County Dairy Improvement Association in 1916
This cow gave 13,270 pounds of milk containing 427.7 pounds of butter fat

0 1000
1000 1000

mic proposition to have this diminution of our supplies of this nature checked. And, moreover, looking to the future, it is apparent that action must be taken to increase our production to meet the demands of an increasing population.

"As regards the situation of our people for supplies from abroad, the development of this great war has shown us plainly that we are at the mercy of foreign powers in regard to these supplies. It is, therefore, a matter which affects us not only as an economic proposition, but also as a national policy of preparedness, to be independently situated to meet a possible demand for the clothing of our army and our navy.

"There is no reason why the United States should not produce practically all necessary supplies of wool and mutton in its own territory, and if we fail to do so and do not meet the situation which is developing, it will be due entirely to culpable neglect and apathy on our part.

"We have great areas of land especially adapted to raising sheep in small flocks, which are unproductive today, and which can be utilized for this purpose to the greatest possible advantage. And right here in this connection it should be noted that the British Islands, whose area is equal, approximately, to only two-fifths of the area of the State of Texas, produced in 1915 approximately 120,000,000 pounds of wool, whilst the total production of the entire United States was, approximately, 288,000,000 pounds of wool, and moreover, figuring on the usual basis of scoured production, the amount produced of clean wool in the United Kingdom is practically equivalent to the amount of clean wool produced in the United States. From this comparison between the relative position of sheep in the British Isles and in the United States, the figures for consumption by the people of these two countries shows logically as follows: The people of the United States eat $6\frac{1}{2}$ pounds of mutton per capita, while the English eat 26 pounds per capita.

Great Sheep Country Idle

"Throughout the hill and mountain ranges which stretch along our entire eastern section from New Hampshire to Georgia are thousands of acres now practically unproductive which should be

utilized for the purpose of raising sheep. We are in the position of a man who has a plant equipped for the profitable production of needed material, but whose machinery lies idle and unproductive because he is too shiftless and lazy to operate it.

"In our own State of Pennsylvania, for instance, we have conditions which are typical of those which exist throughout the sections above noted. We have many acres of hill and valley suitable for sheep raising where in former years could be found a much greater number of sheep than exists today.

"Statistics show that the flocks of sheep have decreased in this State during the last seven years; that the production of wool has fallen off $33 \frac{1}{3}$ per cent. Now let it be known and thoroughly understood that the fundamental cause for the decrease of sheep is the fact that the ravages of dogs throughout our rural districts have so discouraged farmers that they have given up keeping sheep to a large extent, as it is shown by the statistics quoted.

5,000 Sheep Killed by Dogs in Pennsylvania

"Notwithstanding the increased number of dogs killed in the agricultural counties, the slaughter of sheep by dogs made a substantial increase during 1915 over the previous year. Mad dogs also gathered in a large toll of horses, mules, cattle and swine than the year before, according to a statistical table just prepared by the State Department of Agriculture.

"Deaths of 5,808 sheep during 1915 are attributed to dogs, the number killed in 1914 being 5,187. The number of injured sheep is fixed at 4,764, an increase of nearly a thousand over the year before.

"The State of Pennsylvania has recently amended the dog laws to make them decidedly more stringent, these amendments going into effect the 1st of January, 1916. The operation of this law has not proceeded far enough to give intelligent basis as to whether it will bring the required results or not. It is common experience that good laws may exist, but be futile from lack of enforcement. It is necessary to have the strong support of public sentiment and public interest behind the laws to make them effective, and the people of the State of Pennsylvania should be awakened to the facts above presented and interest themselves in every way pos-

sible to see that these laws are enforced, because it affects directly the interests of the two fundamental necessities of life to them: their food and clothing.

Sheep versus Dog

"The question resolves itself finally, therefore, into the proposition, not only in Pennsylvania, but in all the other States, whether the people are going to tolerate this dog nuisance or abate it by adequate laws strictly enforced. It is generally conceded by those who know that the farmers will be glad to increase their flocks, which are a profitable adjunct to any farm, if they are given the needed protection from dogs.

"It is not the desire or the intention to annihilate the dog. The writer of this article loves a good dog. It should be realized, however, that the possession of a dog must be governed and restricted by wise laws which, while permitting their existence, will not allow them to be a source of damage and danger to the community. We recognize, for instance, the value of the motor-driven car as a means of transportation, but we regulate and control its operation; we recognize the tremendous value of our great railway systems, but these, also, we regulate and control.

"Let us therefore, appreciate the fact that the regulation and restriction of the dog has become a national economic proposition and that it is as necessary to bring the dog under the control of the law as any of the other factors which are thus regulated for the public welfare.

"The Philadelphia Wool and Textile Association has taken this matter up energetically, and has entered into a national campaign for the protection of sheep from dogs in the various States, and thereafter for the education and encouragement of the farmers to keep sheep. The Philadelphia Wool and Textile Association desires that the public shall understand this situation so that the people will co-operate and sustain it in its efforts.

"The jury of the people must decide this case of Sheep vs. Dog; they must decide whether they will tolerate the ravages of a destructive animal or whether they will protect that wealth-producing animal which according to archeology, was the first to be domesti-

cated by man, and the one which, taking all things into consideration, has been of the greatest value to supply the real necessities of human existence."

DAIRY PRODUCTS

At the outset of this survey, the Committee endeavored to secure accurate and reliable statistics as to the amount and value of dairy products produced in this State during the year 1915, the year to which for obvious reasons, this survey was attempted to be confined. Substantially how many pounds of butter, how many pounds of cheese, how many pounds, quarts or gallons of market milk were produced and consumed by the people of this State during that year? It would seem that this knowledge was so important that the figures should have been readily accessible. We have not been able to obtain reliable and complete data upon this point. The Committee attempted and is now attempting to secure such data by the best methods available and hopes later to be able to present somewhat more definite and accurate figures on these subjects than have yet been secured. Such statistics as are available do not show encouraging conditions in the dairy industry. Statistics presented to this Committee show that during the years from 1905 to 1915, the population of this State increased from 8,067,308 in 1905, to 9,687,744 in 1915 — an increase of 1,620,436; that in the year 1900, the dairy cows in this State were enumerated at a total of 1,501,608, and that the enumeration of 1910 showed 1,509,594 — or an increase in number of 7,986. Obviously, the number of dairy cows and the production therefrom has failed to keep pace with the growth of population. It is undeniable that during the same period the number of persons engaged in the production of dairy products has decreased. This is established by the figures showing an increasing acreage of abandoned tillable land, and a decreasing population of the rural towns. These figures account, in part at least, for the increased cost of dairy products to the population of this State and is one of the obvious explanations of the high cost of living.

The Federal Census Report of 1910 gives the total number of dairy cows in the State as 1,509,594; the number of calves,

438,329, making a total of 1,947,923 head. The State of New York Census of Livestock and Crops of 1915, made by the Department of Agriculture in co-operation with the Education Department, gives the following figures:

Number of dairy cows two years and over.....	1,301,754
Number of yearling heifers.....	292,368
Number of calves raised in 1915.....	343,782
	<hr/>
A total of.....	1,937,894
	<hr/>

Records of milk distributing companies show that the average production of their patrons' herds in 1902 was 278 pounds of milk per day per herd. In 1916 this average production was 204 pounds per day, a decrease of 18.7 per cent.

The first figures would show an actual decrease from the Federal enumeration of 1910, of 10,029 head. For various reasons, lack of facility, equipment, and so forth, the State enumeration may not be absolutely accurate, but it is undoubtedly sufficiently so to make clear the fact that there has been no substantial growth of the dairy industry in the State during the past five years to keep pace with the growing population, if, indeed, there has not been an absolute loss. The milk company records prove the reduction in cows per dairy.

That the State was and is threatened with the possible decay of the dairy industry is apparent. No problem of equal importance confronts the people of this State and the problem is a more vital one to the inhabitants of our large cities than to the agricultural communities. The farmer, in whatever activity he is engaged, can always and easily provide himself with sufficient dairy products for his own use, but from what source and at what price the inhabitants of our cities are to secure an abundant supply of wholesome milk, butter and cheese is a far more serious proposition. Undeniably, animal husbandry and the production of milk, butter and cheese is the surest and most permanent source of wealth in any State. An abundant supply of these products ensures against famine and want for the present and ensures the fertility of the soil for the coming generations. No other industry or agricultural

pursuit can supply the loss. Sheep husbandry has already departed and the art, if it has not already disappeared, is rapidly disappearing. Our farmers who wish to re-engage in that industry must even now seek skilled help from without the State. Shall the dairy industry be allowed to follow that of sheep raising? It must always be borne in mind also that such industries when once decayed or lost are not easily restored. It is perfectly possible, in the judgment of the Committee, to seriously endanger and cripple the dairy industry in the State by unfavorable conditions continuing for a period of say five to ten years. When the dairyman, because of such conditions, has once abandoned the pursuit, even with more favorable conditions it is not so easily restored. The reasons that have prevented the further growth of the dairy industry in the State are not far to seek.

CONCLUSION AS TO CONDITIONS THREATENING THE PROSPERITY OF THE DAIRY INDUSTRY

The Committee is of the opinion and accordingly reports that during a period of several years the dairy farmer, laboring industriously and thriftily as he might, was not able to procure such reasonable price from the sale of dairy products in this State as to earn a fair labor and invested capital return. If the producers are unable to secure a fair labor return, the industry must necessarily decay in this State, resulting in higher prices to the consumer for corresponding products brought from distant fields or countries to which other and equally favorable markets are more accessible. The consumer can only be assured of an abundant supply of these necessary products, and the State can only retain this important industry within its borders, ensuring present food and future fertility of our soil, by endeavoring to bring about such conditions as will provide to the producer a fair and reasonable return for his labor and invested capital. That the dairy farmer was unable to earn a fair and adequate return in the industry during several years past was conclusively established, in the judgment of this Committee, by abundant evidence in practically every farming community in this State. Many remedies have been suggested for this condition. It is frequently said the farmer must be more efficient.

AGRICULTURAL EFFICIENCY

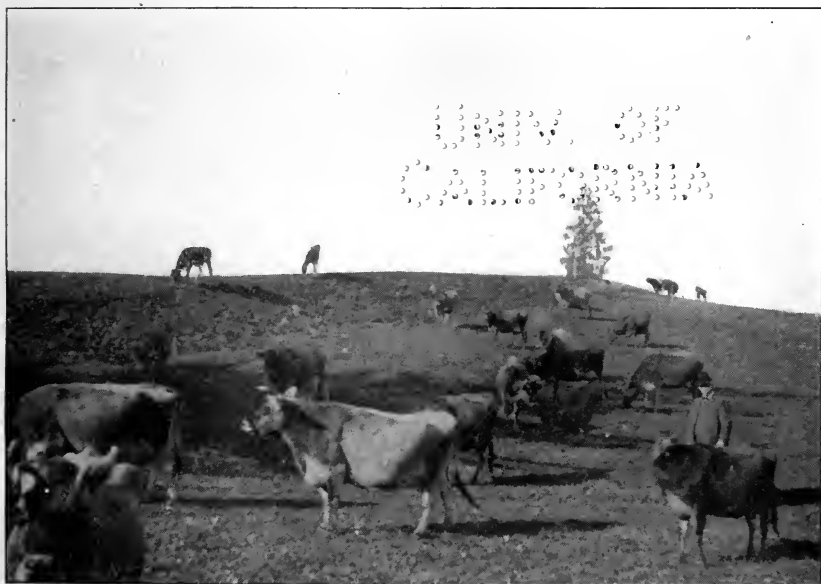
The Committee is constrained to the belief that the average dairyman is as thrifty and efficient in his chosen pursuit as the average man in other walks of life. The hours of labor of the individual engaged therein are longer and more arduous per diem than are those in any other walk of life known to us. No threatened strike or Congressional action can lighten his task or shorten his daily toil. The complete task renews itself with every sun and is not finished while daylight lasts. In the old days, it was somewhat of a seasonal occupation and the winter lightened the constant toil, but under present market milk conditions there is and can be little season. Neither Sundays nor holidays bring him relief from his daily work. It must be performed that the rest of the community may live and receive its constant daily supply of dairy products. For years, too, the dairyman has readily availed himself of all means of information and education offered by the State. We doubt if there is another group of men in any corresponding industry so well informed as to their craft, so keenly interested in its progress, and so eager for success as the dairy farmers of the State of New York. Going about their farms or examining them under oath, it is difficult to find where they waste their time, labor or material and where all the energies reasonably possible are not devoted to individual success. It has frequently been stated and pled that the solution of the dairymen's problem is to have one cow which will produce as much milk as two or three of the average cows on the average dairy farm, and that the dairy farmer is at fault because he has not already achieved that end. In other words, that he must supply himself with the doubly-efficient cow. It is the judgment of this Committee that it is much easier and simpler to state this remedy than to bring about such conditions. It has perhaps taken something like five thousand years to produce the average cow of the average efficiency as we now know her. It will take a long period of time and the efforts of many men to double the present average efficiency. If the State of New York is to be supplied with dairy products only by dairy cows that produce seven thousand pounds of milk per annum and if such cows are to be the only source of supply, we venture the prediction that our inhabitants

for the next fifty years will be compelled to pay far more than the present prices for milk, butter and cheese. We do not mean to suggest that the large-producing cow is not to be sought for, wished for, and worked for by all means available, but we do mean to suggest that a ready supply of such large-producing animals furnishes no present solution of the dairy problems in this State. They are unavailable and impossible to secure in sufficient number either to supply our people with food or to prevent the possible decay of the dairy industry as a whole. The problem in this State is to preserve the average dairy industry and the average dairy cow and to provide for the average dairy farmer a reasonable labor return from his efforts under present conditions.

COST OF PRODUCTION OF MILK IN THIS STATE DURING RECENT YEARS

The Committee has made exhaustive inquiries upon this subject in practically every dairy county of the State. The number of witnesses examined upon this point approximate nearly two hundred. They range in type from the men at the head of our agricultural educational institutions, Farm Bureau agents, breeders of high-grade stock, plain market milk producers, and the industrious occupant of the remote hill farm, sturdily endeavoring to support a home by the individual efforts of himself and family. We have had testimony practically from every dairy community in this State. This testimony was taken under conditions which made for its reliability and accuracy. It was not received by the Committee in the form of prepared papers, irresponsible declarations, or through paid agents interested in sustaining a given proposition. Hearsay and guesswork were practically eliminated. It was sought and taken largely under the same conditions as would apply to the giving of testimony to establish facts in a competent court.

The Committee had no retainer to establish any given proposition, but sought to ascertain as diligently as it might the true facts. The witnesses were closely cross-examined and every credit item to which the dairy was entitled was endeavored to be established and brought out.



Pasture scene on the estate of William P. Clyde, New Hamburg, N. Y. This is not a commercial dairy but simply one typifying hundreds of herds on private estates in the lower Hudson valley

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It was much easier to establish and clearly set forth the credit items of the production account than it was to secure and bring into the record all the debit items which under any just system of accounting should be charged as a legitimate expense. The Committee is forced to the conclusion that if labor and cost items were charged against dairy products as fully and accurately as they are charged upon manufactured articles, transportation, and distribution, it would be established that the cost of milk production is considerably higher than that shown in the evidence presented to us, extracts of which are presented herewith. It must always be remembered that in ascertaining the cost of production of dairy products, very little, if any, account is taken of the value of the services of the farm women or members of the family, other than the hired help and the master of the farm. The consumer receives the full benefit of this skilled, diligent and necessary labor substantially without the same being taken into consideration or valued by any competent system of cost accounting. The only compensation of the average dairy housewife is the general prosperity of the household. Her particular reward is food and clothing. If the industry of the household is such as not to procure a labor return which makes for the general prosperity of the family, the labor of these members of the household remains unpaid, except for a meager livelihood. Society receives the benefit of her productive labor without making just compensation therefor. This amounts practically to unpaid service upon the dairy farm not only for the housewife, but for the maturing sons and daughters. That these services have not been fairly compensated is sufficiently well established by the evidence taken before us. Is it to be marvelled at, then, that the housewife and the younger members of the family seek ways and means to abandon dairy farming and to escape to the manufacturing centers where their hours of labor will be shorter, strict accounting made therefor, and fair compensation received?

CONCLUSIONS AS TO THE COST OF MILK PRODUCTION IN NEW ENGLAND.

In co-operation with the Federal Department of Agriculture, the State Departments of Agriculture, Agricultural Colleges and State Granges, the State Dairymen's Association and county agents of each State respectively, sixteen hearings were held throughout New England by a sub-committee of the Committee on Agriculture of the Boston Chamber of Commerce upon this subject in the year 1914.

About twenty-five hundred farmers attended these hearings, representing between seventy and eighty per cent. of the milk-producing towns in New England. The printed report of this committee states:

"The number of producers who kept a strictly accurate record of all the cost items was naturally small. During the last five or ten years, however, more attention has been given to the question of the cost of keeping cows, and the number of producers who keep accurate records has been rapidly on the increase. As a matter of fact, it was shown that it was within only the last seven to ten years that serious consideration has been given to an analysis of the items of cost in the keeping of cows.

"Taken over New England generally, under varying conditions and with varying degrees of efficiency and varying accuracy as to items of cost, the following range of figures represents fairly the evidence obtained at the hearings:

	<i>Total Cost</i>		
	Producer No. 1	Producer No. 2	Producer No. 3
1. Feed — hay, grain, ensilage, pasture.	\$49 40	\$51 54	\$68 00
2. Labor.	17 72	18 15	45 00
3. Overhead charges:			
a. Interest on money invested in cow.	3 00	5 85	10 00
b. Insurance on cow	45	37	3 00
c. Taxes on cow	2 15	75	.....
d. Depreciation of cow	5 00	9 75	20 00
e. Barn rent	2 86	2 00	1 00
f. Bedding.	2 00	1 00	5 00
g. Keep of bull	2 86	3 00	5 00
h. Incidentals — light, medicine, veterinarian, heating water in winter, salt, etc.	1 50	50	5 00
	<hr/> \$86 94 <hr/>	<hr/> \$92 91 <hr/>	<hr/> \$162 00 <hr/>

Credits

Value of calf	\$1 00	\$11 00	\$5 00
Value of manure	5 00	10 00	15 00
	<u>\$6 00</u>	<u>\$21 00</u>	<u>\$20 00</u>
Net cost to keep a cow.....	<u>\$80 94</u>	<u>\$71 91</u>	<u>\$142 00</u>

(These figures show that it costs No. 3 almost twice No. 2 to keep a cow.)

Variation in Production

Figures obtained on production varied from 3,500 to 15,000 lbs. per year.

In the above three instances, the amount of production per cow was as follows:

No. 1	No. 2	No. 3
5,293 lbs.	6,590 lbs.	8,000 lbs.
The cost of 100 lbs. of milk to each was, therefore:		
\$1.5291	\$1.0911	\$1.775
Cost per quart:		
\$0.0332	\$0.0237	\$0.0385

The two fundamental factors entering into the cost of a quart of milk are the net cost of keeping a cow per year and the amount of milk the cow produces in a year.

1. Probably less than 20 per cent. of these farmers have silos. Estimates on pasture varied, but the pastures vary to a considerable extent, depending on whether they are good for one, two, three or four months. This will vary in the farms in each locality according to the condition of the pasture land.

2. Labor was subject to wide variations—\$15 to \$45 per year per cow. In many sections, farmers stated that they could not market their labor in winter in any other way except in the care of cows. Estimates of cost of boarding a hired man were from \$7.50 to \$22.50 per month. * * *

4. In Massachusetts, Connecticut and Rhode Island, most of the farmers buy cows at \$70 to \$110, milk them one to four years, then sell them for beef at \$20 to \$60, according to the size, condition of cow and market price for beef. This depreciation of \$20 to \$60 is divided over the number of years the cow is kept.

Very few took into account the depreciation to be figured over a series of years (five, eight or ten years), because of sickness, death, loss of calves, bunches on knees, sore teats and loss of one or more quarters of the bag, etc.
* * *

6. One of the widest variations was found in the estimated value of manure, from \$30 per cow in greenhouses and market garden districts in Massachusetts, Connecticut and Rhode Island, to \$5 in other localities. There seems to be very little definite or accurate knowledge as to what manure is really worth to the land for the raising of crops or the effect of certain kinds of bedding on the quality of the manure and on the land. Most of the estimates were guesses of \$10 to \$15, which the farmer had heard had been given out by experiment stations.

If many farmers are depending on the calf and manure for their return for the labor in keeping a cow, as many stated was their usual method of figuring

(calf and manure offset the labor charge), then many farmers on their estimates were proved to be getting a poor return for their labor.

It appeared that the situation was further complicated by the fact that producers generally had no accurate knowledge of the number of important factors affecting the cost of production on their farms.

1. This was particularly true in regard to the number of pounds of milk per cow. While figures obtained by the committee ranged from 3,500 lbs. to 15,000 lbs. per year, it was clear that there are many cows in New England producing under 3,500 lbs. per year.

It is exceedingly doubtful if most of the cows in New England are producing much more than 3,500 to 4,000 lbs. per year.

The evidence demonstrated that while in many towns there are from five to twenty-five producers who have pure-bred bulls, and some have pure-bred cows, as a matter of fact the majority do not have either; and outside of the cow test associations, a disappointingly small per cent. weigh or measure, although there has been a great increase in weighing in the last three or four years.

2. Comparatively very few farmers had taken any account of incidentals, such as light, medicine, heating water in winter, veterinarian, salt, curry combs, shovels, etc. All of these items are necessary and cost money, and should be reckoned in the cost of keeping a cow."

We insert the foregoing extracts from the above-mentioned report herein as affording a basis of comparison with the results obtained by this Committee. It may be questioned whether the method of taking the costs set out in this report and which have been largely followed in the farm bureau work of this State is the only or the most exact method of obtaining the costs of production on the dairy farms in New York State which are practically devoted entirely to the production of market milk. Dairy farmers in New England, and especially in extensive parts of that territory, still sell from their farms for their cash income, corn, oats, beef, sheep, wool, eggs and poultry, home-made cheese, butter, and other products. Taken as a whole, the hill farms of New England may safely be said to require a smaller capital investment than the dairy farms of the State of New York devoted entirely to the industry. Of course, there are many exceptions to this proposition.

It was considered of sufficient importance to the Committee making this examination to remark in their report when considering the matter of labor cost that, "*The farmers stated that they could not market their labor in winter in any other way except in the care of cows.*" The inference we gather from this statement

is that in these cost accountings, therefore, the winter labor of the dairy farmers was included at a low figure, and this low cost of labor necessarily entered into the labor items set out in the report. Considered from its economic side, this proposition is unsound, and its unsoundness is demonstrated by economic development in this State. There was a period in our state when farm labor could not be marketed in winter except at a very low price. The dairy farmers and the entire community are now astonished to discover that farm labor, both in the summer and winter, need no longer continue farm labor, but can readily be marketed at a high price in the adjacent manufacturing communities. The consequence of this development is that sufficient farm labor, either in winter or summer, is no longer available to provide for the care and keeping of dairy cows, except at a high price.

The dairyman is compelled, in order to procure help, to enter into competition with the highly paid labor of the factory towns, both in winter and summer. The hired man no longer works for his board through the five winter months. He is becoming and has already become to a considerable extent, a valued employee with a substantial annual salary. The farming community, as a whole, and every member of this Legislature who is acquainted with general farming conditions will readily agree with this conclusion. The labor cost in the above report of Producer No. 1 at \$17.72, and of Producer No. 2 at \$18.50, must be assumed to include the daily charge of the cattle and the stable; the milking and delivery of the milk; the attention required for breeding and calving; the hauling and labor of horses therein for every day in the year. Take a dairy of twenty cows, would it be possible to contract for the sum of \$354.40 with a competent person in this State during the past four or five years for the doing of this work, including the housekeeping and preparation of food for the person engaged therein? Our average dairy farmer would heartily welcome the opportunity to make such a contract. The conclusion reached by the Committee, therefore, is that the items of labor cost in Producer No. 1 and 2, in the above report, are at least not fairly applicable to the situation in the State of New York and do not reflect prevailing farm labor conditions in the State of New York during several years past.

Average Production Per Cow

The conclusion reached by the New England investigation and expressed in the statement, "It is exceedingly doubtful if most of the cows in New England are producing much more than 3,500 to 4,000 pounds per year," is partially borne out by the evidence produced before this Committee and is probably but little below the average in New York. It is mentioned in this connection because the production of a cow is an important factor governing the cost of production. This is further borne out by the statistical report of the Federal Census of 1910 in relation to milk production in the State of New York, by which it appears that the average production of all the enumerated dairy cows in the State of New York approximated 4,000 to 4,500 pounds of milk per annum.

Cost of Milk Production in the State of New York Prior to the Year 1916

The Department of Farm Management of the New York State College of Agriculture at Cornell University since the year 1911 has conducted a series of investigations into the cost of milk production in the State. During the period from August 1st, 1911, until July 31, 1913, it collected cost data on 174 farms in Delaware county. Great care was used in taking the figures and they were checked over daily in order to avoid mistakes and to make sure that the records were complete. The report of this investigation is among the exhibits in evidence before this Committee. Certain statements and schedules included therein are made a part hereof and contain both interesting and reliable data upon this matter. Among other things, it is said:

Most of the farms visited were in the townships of Delhi, Cortwright, Hobart, Stamford and Harpersfield, Delaware county. During the summer and fall of 1912, complete records were obtained from 210 farms. The same farms were revisited in 1913, but since 1912 was an unfavorable year for dairymen, many of them had become discouraged. *There were 21 men, or 10 per cent. of the total number visited, who had either changed farms or gone out of the dairy business, or had done both.* (The italics are inserted by the Committee.) The remaining 174 farms furnished complete records the second year, and therefore the records from the same 174 farms were used both years.

Any farm that kept at least 12 cows was included. Aside from this, the farms were not selected in any way. They varied in many respects.

The sizes of the farms varied from 68 acres to 538 acres; the average was 139 acres. The smallest number of cows kept on any of these farms was 12; the largest number was 102, and the average was 30.

The capital invested in the dairy enterprises varied from \$1,826 to \$18,478; the average was \$5,890.

The distance from market varied from 0.3 mile to 6.5 miles; the average was 2.7 miles. In general, it may be said that these were typical dairy farms of the region.

The county is best adapted to the keeping of dairy cows. The steep hillsides, which constitute a large proportion of the region, are suitable for grazing purposes. At the foot of nearly every hill there is a spring, which furnishes abundant water for the stock. Dairying has been for many years, and perhaps will continue to be, the leading industry. According to the census of 1910, there were 78,073 dairy cows in the county, producing 33,004,538 gallons of milk. These figures give Delaware county the second place among the counties of New York in number of dairy cows and in the production of milk. St. Lawrence county, which is much larger, leads with 100,537 cows, and 36,484,918 gallons of milk. In proportion to the number of inhabitants, however, Delaware county has more cows, and produces more milk, than any other county in the State. For every one hundred persons in Delaware county, there were 171 dairy cows.

The greater part of the milk produced is sold in New York City in the form of milk. The common practice is to sell this milk according to the butter fat content. The test of the average herd in this region was 4.6 per cent.

The cost of feed is the principal factor that enters into the cost of maintaining an animal. In 1912, there were 1,952 head of young stock and 5,308 cows on 174 farms. This would indicate that one calf is raised each year for approximately every five cows; the average age at which a heifer drops her first calf being determined as about two years. It is necessary to raise about that proportion of young stock in order to maintain the herd. Assuming this to be true, any expense for raising young stock is a part of the dairy business and should be included in finding the cost of milk production. In this study the costs of keeping the young stock and the bulls were not kept separate from the cost of keeping the mature cows. The feed used per cow and the labor required per cow in all the following tables are therefore the amount used per cow plus her proportion of the accompanying stock.

All grain and forage used by the cattle, whether raised or bought, was figured at its farm value, not at its cost of production. The farm value may differ from the market value, but whenever any feeds were bought and hauled to the farm the cattle are charged with the market value of the feed, the cost of hauling being included under the man, horse and equipment charge. The farms are so heavily stocked that it is impossible for the farmers to raise all the grain and all the roughage required.

There were 5,318.8 tons of grain fed to cattle on these 174 farms. The number of cows kept was 5,308, so that the average cow, together with the accompanying stock, used a little more than one ton of grain.

TABLE 1. Grain Raised and Fed, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912.

Kind	Quantity (tons)	Average value per ton	Total value
Ear corn	6.4	\$12 50	\$80
Oats.	51.5	33 15	1,707
Oats and barley	11.6	26 72	310
Buckwheat.	18.5	34 70	642
	88.0	\$31 12	\$2,739

Grain Bought and Fed

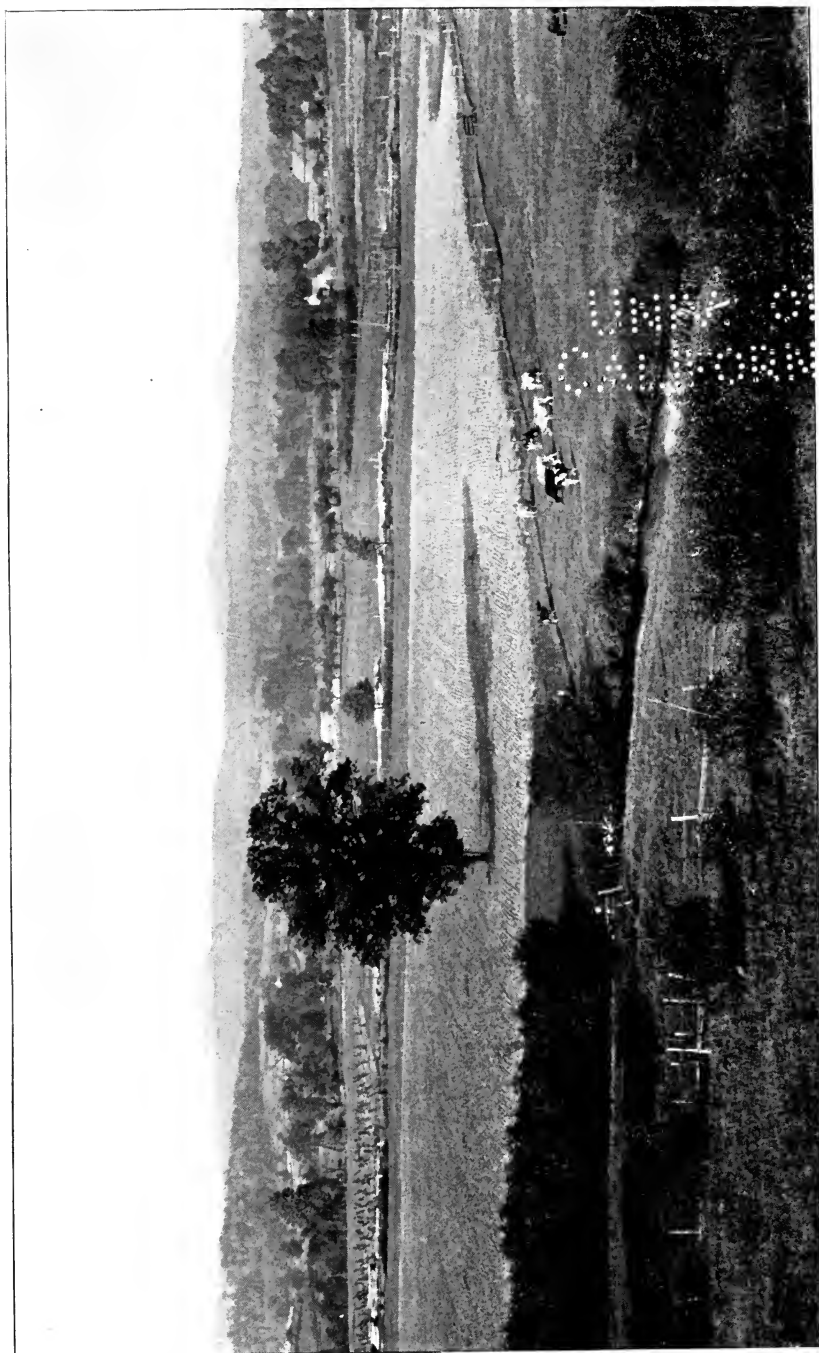
In 1912 the dairymen on these farms bought 98.3 per cent. of the grain fed to cattle. The average cost of the grain was \$31.27 per ton. The kinds, quantities and value of the different grains used are given in Table 2:

TABLE 2. Grain Bought and Fed, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912

Kind	Quantity (tons)	Average value per ton	Total value
Ajax.	36.0	\$32 97	\$1,187
Beet pulp	183.5	27 96	5,130
Brewers' grains	83.6	30 08	2,515
Corn meal	129.1	31 79	4,104
Cottonseed meal	1,040.2	33 28	34,619
Gluten (continental)	255.2	33 62	8,580
Gluten (yellow)	1,136.1	32 54	36,972
Middlings (wheat)	16.0	30 00	480
Middlings (buckwheat)	10.0	29 00	290
Molasses feed	742.1	27 83	20,650
Oil meal	12.5	36 48	456
Quaker oat feed	17.0	25 94	441
Wheat feed	742.9	31 31	23,258
Calf meal	5.1	56 27	287
Salt.	43.0	12 00	516
Wheat bran	127.4	29 74	3,789
Hominy.	274.3	31 79	8,720
Hammond dairy	10.1	30 00	303
Housten dairy	6.0	32 00	192
Husted feed	1.0	25 00	25
3 D's	5.0	33 00	165
Corn and oats	36.0	32 00	1,152
Oats.	10.0	30 70	307
Ground corn	5.0	30 00	150
Alfalfa meal	0.5	30 00	15
Kinds not itemized	303.2	30 55	9,262
	5,230.8	\$31 27	\$163,565

Forage (Except Silage) Raised and Bought

More than 99 per cent. of the forage that was fed was produced on the farm. The kinds, quantities and values of the forage raised and bought are given in Tables 3 and 4:



A June day along the Susquehanna

TO THE
ABBOT OF

TABLE 3. Forage (Except Silage) Raised and Fed, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912.

Kind	Quantity (tons)	Average value per ton	Total value
Oat hay	56.5	\$16 19	\$915
Mixed hay	10,316.5	18 57	191,577
Clover hay	65.0	18 00	1,170
Alfalfa hay	13.0	19 85	258
Corn stover	598.1	11 00	6,579
Peas and oats	245.5	17 75	4,357
Millet.	318.8	16 84	5,370
Straw.	269.0	9 65	2,595
	<u>11,882.4</u>	<u>\$17 91</u>	<u>\$212,821</u>

TABLE 4. Forage (Except Silage) Bought and Fed, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912

Kind	Quantity (tons)	Average value per ton	Total value
Alfalfa hay	8.5	\$23 06	\$196
Clover hay	8.3	21 45	178
Mixed hay	46.8	20 68	968
Straw.	7.5	11 33	85
	<u>71.1</u>	<u>\$20 07</u>	<u>\$1,427</u>

Silage

No silage was bought or sold, all silage being fed on the farms where it was grown. The average farm value of clover and mixed hay in Delaware county for the year from August 1, 1911, to July 31, 1912, was \$18.57 per ton. When hay is worth \$18.75 per ton, corn silage should be worth \$6 per ton. In order to avoid any possible criticism it was charged at \$5. At this price the value of the 4,759 tons fed was \$23,795. Pasture was figured as follows: Interest amounting to 5 per cent., and taxes amounting to 0.5 per cent., were charged on the actual value of the land in pasture. The 16,054 acres of pasture land on these 174 farms were valued at \$311,641, which included such added costs of making and repairing fences, fertilizing, reseeding, mowing, and the like. The average value per acre was \$19.41. The annual cost of this pasture in 1912 was \$22,762, which was \$4.29 per cow and accompanying stock. Labor was divided into two classes—human labor and horse labor. Human labor included all manual labor that was done for the dairy enterprise, with the exception of hauling the milk. It included the time spent in doing chores, such as driving cattle to and from pasture, milking, caring for milk and dairy equipment; feeding the cattle, cleaning stables, and all miscellaneous work such as caring for sick animals, buying and selling stock, hauling and mixing feed, and the like.

The time spent in raising and harvesting crops for the cows was not included, as the feed was charged at its farm value, not its cost of production. Time spent in hauling out manure was not included, as the manure was credited at its value in the barnyard.

Horse labor included all the time when the horses were working for the cows, excepting the time required to haul milk, raise and harvest crops and haul manure.

In order that the labor charges might not be considered excessive, man labor was charged at fifteen cents and horse labor at twelve cents per hour. There were no records available to show how much women and child labor cost. In this investigation, women and child labor was valued at ten cents per hour.

The average time required to care for a cow and the accompanying stock in 1912 was 158 human hours and two horse hours.

The cost of hauling the milk in question was \$31,338. Only the cost of the necessary buildings for sheltering the cattle were charged to the dairy.

Cost of Cattle

Owing to inefficiency and death, it is necessary to keep changing the cows in a dairy herd. The animals that die are almost a total loss, and dairy cows sold for beef are disposed of at a sacrifice.

In herds where cows are fed large quantities of concentrated feeds, the loss from depreciation becomes an important factor in the cost of milk production.

During the year 1911-12 there were 1,222 cows sold from these farms and 128 cows that died. At the end of the year there were on the farms 120 cows less than at the beginning. (The rest of the loss being made up from the growing young stock.) This would mean to maintain the same number of cows throughout the year would necessitate changing 1,470 cows. Since there were on an average 5,308 cows, this would indicate that the average productive life of a dairy cow was 3.6 years.

In order to determine stock depreciation in another way, each farmer was asked to give his estimate of the average time that a cow remained in his dairy. The average of these 174 estimates was 5.8 years. This is perhaps a more reliable figure, as results obtained for any one year are influenced by the conditions prevailing during the year, while estimates of this nature are based on the experience of many years.

The cattle costs were therefore decreased in inventory, plus interest on average investment. In case there was an increase in inventory, that increase was subtracted from the interest cost. On these farms there was a gain in stock of \$7,226, as shown in the following table:

TABLE 12. Cost of Cattle, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912.

Total value of cattle August 1, 1912.....	\$262,390	
Sales during year	32,371	
Total.		\$294,761
Total value of cattle August 1, 1911.....	\$259,804	
Purchases during year	27,231	
Total.		287,035
Difference (increase)		\$7,726
Average investment in cattle, \$261,097.		
Interest on \$261,097 at 5 per cent.....	\$13,055	
Deducting gain on cattle from interest.....	7,726	
Net cost		\$5,329

The average value of the dairy equipment, cans, pails, strainers, etc., for these farms was the sum of \$8,984, and the depreciation thereon averaged \$273 per year.

The annual cost of this equipment to the 174 farms was \$2,133. The miscellaneous costs are shown by the following table:

TABLE 15. Miscellaneous Costs, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912.

Insurance on cattle	\$814
Veterinary fees	671
Medicines.	797
Fly protector.	220
Breeding fees	73
Testing fees	84
Registration and other fees	38
Skim milk bought for calves	1,943
Ice.	1,485
Grinding feed	166
Cutting straw	5
Acids.	3
	<hr/>
	\$6,299

Credits

Credit was given for value of milk and butter used in the house, value of milk or skim milk fed to stock other than cattle; value of manure produced; receipts from hides and other miscellaneous returns. All milk used in the homes was valued at \$2 per hundredweight and amounted to \$7,268. Skim milk fed to hogs, chickens and other stock was valued at \$300. Returns from breeding fees and hides were fully credited. Returns from the sale of stock were not enough to pay for the purchases and 5 per cent. on the investment. The returns, other than from milk sold in 1912, are given in Table 16.

TABLE 16. Summary of Returns Other than Milk Sold, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls, 1912.

Butter used in house, 260 pounds at 30 cents	\$78
Milk used in house, 3,634 hundredweight, at \$2	7,268
Milk and skim milk fed to stock other than cattle	300
Manure, 47,936 loads, at \$1	47,936
Hides.	3,925
Breeding fees	15
	<hr/>
	\$59,522

SUMMARY OF THE COSTS OF PRODUCING MILK, 1912

A summary of the costs of producing milk in 1912 is given in Table 17:

TABLE 17. Summary of Costs of Producing Milk, 1912, 5,308 Cows, 1,078 Heifers, 874 Calves and 158 Bulls.

	Total	Percent of total cost	Cost per cow and accom- panying stock	Cost per 100 pounds of milk
Gross costs:				
Feed and bedding	\$437,951	69.4	\$82 50	\$1.8035
Labor.	119,191	18.9	22 45	.4908
Hauling milk	31,338	5.0	5 90	.1291
Buildings.	28,162	4.5	5 31	.1160
Cattle.	5,329	0.8	1 00	.0219
Dairy equipment	2,582	0.4	49	.0106
Miscellaneous costs	6,299	1.0	1 19	.0259
Total.	\$630,852	100.0	\$118 84	\$2.5978
Returns:				
Returns, excluding milk sold.	59,522	.....	11 21	.2451
Net cost of 242,830 hun- dred weight of milk...	\$571,330	.....	\$107 63	\$2.3527

The feed and bedding cost was \$82.50 per cow, or 69.4 per cent. of the total cost. The labor cost per cow, not including milk hauling, was \$22.45, which was 18.9 per cent. of all the costs. If hauling milk had been included under labor, the labor cost would have been \$28.35 per cow. The cost of shelter, interest and depreciation on cattle, cost of dairy equipment and miscellaneous expenses amounted to \$7.99 per cow. The total cost of keeping a cow in Delaware county was \$118.84. The returns from products other than milk sold amounted to \$107.63 per cow. The net cost of producing 100 pounds of milk during 1912 was \$2.35, or a little over five cents a quart. The net cost of producing one pound of butter-fat was 51 cents. The average price received for this milk was \$1.65 per hundredweight.

Owing to the high prices for grain and the general scarcity of hay, the cost of producing milk was greater for the year from August 1, 1911, to July 31, 1912, than it would have been under normal conditions. For fear that the results obtained that year might lead to a wrong conclusion, it was thought desirable to have additional data. With this in view, the same farms were visited the following year and similar records were taken of the dairy business. The farms and the management were the same, but the price of milk had advanced eleven cents per hundredweight. In general, the costs were much the same; the greatest difference was found in the price of the feeds and in the quantities of feeds used. The total value of the grain raised and fed during the period 1912-13 was \$2,353, having an average value of \$30.28 per ton. The grain bought and fed had a total value of \$159,882, or an average value of \$28.57 per ton. The forage, except silage, raised and fed had a total value of \$169,993, or an average value of \$15.42 per ton. The forage bought was valued at \$1,556, or an average of \$13.67 per ton. There were 4,166.2 tons of silage fed, valued at \$5 per ton, amounting to the sum of

\$20,831. The cost of pasture was \$19,203. Bedding costs amounted to \$3,967. Interest at 5 per cent. on the average investment in feed amounted to \$5,135. The total summary of feeding and bedding costs for 1912-13 was \$382,920, as compared with \$437,951 for the year 1911-12. The cost of labor was \$91,113; cost of hauling was \$30,924; repairs, interest, depreciation, insurance on buildings, amounted to \$28,489; dairy equipment cost \$2,016; miscellaneous costs were \$6,132. Credit returns other than milk sold were \$71,454.

SUMMARY OF THE COSTS OF PRODUCING MILK, 1913

A summary of the costs of producing milk is given in Table 24:

TABLE 24. Summary of Costs of Producing Milk, 1913, 5,030 Cows, 1,027 Heifers, 883 Calves and 141 Bulls.

Gross costs:	Total	Percent of total cost	Cost per cow and accom- panying stock	Cost per 100 pounds of milk
Feed and bedding	\$382,920	70.7	\$76 13	\$1.6548
Labor.	91,113	16.8	18 11	.3937
Hauling milk.	30,924	5.7	6.15	.1336
Buildings.	28,489	5.3	5.66	.1231
Dairy equipment.	2,016	0.4	0.40	.0087
Miscellaneous costs	6,132	1.1	1.22	.0265
	<hr/> \$541,594	<hr/> 100.0	<hr/> \$107 67	<hr/> \$2.3404
Returns:				
Returns, excluding milk sold.	71,454	.....	14.21	.3088
Net cost of 231,399 hundred- weight of milk.....	<hr/> \$470,140	<hr/>	<hr/> \$93.46	<hr/> \$2.0316

In 1913 the feed and bedding cost was \$76.13 per cow, which was 70.7 per cent. of the total cost. The labor cost per cow, not including that for hauling the milk, amounted to \$18.11. It cost \$6.15 to haul the milk from a cow, so that the total labor cost was \$24.26. The annual cost of buildings was \$5.66 per cow. The miscellaneous expenses, including dairy equipment were \$1.62 per cow. The total cost of keeping a cow in Delaware county in 1913 was \$107.67. Deducting for the receipts from hides, value of butter and milk used in the house, and other returns, the cost of producing the marketed milk was \$93.46. This cost was \$14.17 less than the cost for 1912. The net cost of producing 100 pounds of milk was \$2.03, or 32 cents per hundredweight less than it was in the preceding year. The cost of milk was 4.4 cents per quart, or 44 cents per pound of butter-fat. The average price received per hundredweight for milk on these farms in 1913 was \$1.76. There was an average loss of 27 cents on every hundredweight produced.

Results in 1912.

There was 15 dairy herds, or about one herd in 11, that showed a profit. There were 46 herds, or about 1 in 4, that produced milk for \$2 or less per hundredweight.

At the prices of feed, labor and use of capital figured, the average cow in Delaware county failed by \$32.14 to pay expenses. To state the results in another way, the average cow paid all costs excepting the value of hay

and forage that was raised on the farm. For this hay and forage, the cows paid 28 per cent. of its farm value.

Results for 1913

In 1913, dairy conditions were more favorable. Grain and forage were cheaper and milk brought a better price. This year, 52 herds, or 30 per cent. showed some profit. *Under these favorable conditions, the average cow was kept at a loss of \$12.50.*

If the cows paid full value for their feed, there would remain but 4 cents per hour to pay for the labor. In order to show a profit, either feed or labor must be charged below its value.

It is possible for persons to live when they sell hay to cows at a lower figure than its farm value, or when they work for lower wages than 15 cents per hour, or when they accept a lower rate of interest than 5 per cent. The dairymen in Delaware county are doing one or more of those things.

The money made in growing hay and forage helps to balance the loss in the dairy industry. There is also a saving in that these men pay out very little money to hired help, as dairying in this county is a family enterprise.

One hundred and five of the farms in question used woman labor. Eleven used child labor. Thirty-three used both woman and child labor. Twenty-five used man labor only. Either women or children, and in some cases, both, helped with the dairy work on 85.6 per cent. of the farms in Delaware county.

The rates charged for labor were 15 cents per hour for man time and 10 cents per hour for child or woman labor. When two or more members of the family work, it is possible to live on a farm and receive lower wages than those given above.

Ninety-four per cent. of these farms are operated by owners. Even though a high percentage of these farms are mortgaged, (56 per cent. of the farms in the county operated by owners are mortgaged) the owners do not have to pay interest on the total investment and in many instances the farmers do not pay any interest. Owing to these conditions, the average farmer by working hard himself and by getting unpaid help from his wife and children, is able to live on the land. It is believed that the methods used by these farmers are as good as those used by the average farmer in the State.

These cows are producing 125 pounds more milk than the average of the State. The average test of the milk was 1.6 per cent. above the legal standard.

When the average dairyman that gives better than the average in both quantity and quality of milk loses from \$13 to \$32 per cow, there is something wrong. It is believed that the farmer does not receive enough for his milk.

Resulting Decrease in Cows

In 1911, there were 5,251 cows on these 174 farms. In 1912, there were 5,131 cows on the same farms, and in 1913, the number had been reduced to 4,924.

It was found that production increased as the value of the feed used increased, the highest production being in the herds that used the greatest value of feed. While there was increased production with each increased investment in feed, the value of the increase was not enough to pay for the cost of the feed. The cheapest cost of production and consequently the greatest profits were found in the herds that utilized pasture. The more expensive the

winter ration, the narrower was the margin of profit. Only one man in sixteen who gave over \$85 worth of winter feed produced milk for as little as \$2 per 100 pounds. The cost of producing milk was less and the profit of the cow was greater in the herds in which the test of the milk was low. Milk testing 4.4 per cent. of butter-fat, or less, cost \$1.90 per hundredweight to produce, and milk testing 4.9 per cent. of butter-fat or more cost \$2.19 per hundredweight. Since the milk was usually sold on a butter-fat basis, the milk that tested high in butter-fat brought more money than the milk that tested low, but it did not command enough more to make up for the increased cost. In 1912, the average production per cow was 4,644 pounds; in 1913, the average production was 4,695 pounds. There was 19 herds in which the average production was 3,500 pounds or less, and 9 herds in which the production was over 6,500 pounds. In 1912, in the herds where the average production was 3,149 pounds, the cost per hundredweight for the milk was \$3.12, and the loss per cow was \$46. In the herds with an average production of 4,057 pounds per cow, the loss was \$41.

In order to produce milk at a profit, it required an average production of 7,219 pounds per cow. Under average Delaware county conditions a cow should produce from 6,000 to 7,000 pounds of milk in order to show a profit.

Production Costs from Other States

New Hampshire. Experiment Station bulletin giving results of the Lyndeboro Cow Test Association gives the cost of producing 100 pounds of milk at \$1.93.

Massachusetts. Experiment Station bulletin 145 gives complete figures in the quantities, kinds and values of the feed used and the amount of milk produced by the station herd for fifteen years. The cost of producing 100 pounds milk from cows that average a production of 6,036 pounds was \$2.42.

Connecticut. The cost of producing milk for five years in the herd of the Connecticut Agricultural Experiment Station, as given in bulletin 73 of that institution, is as follows: "The average production per cow was 6,379 pounds and the cost per 100 pounds was \$2.12."

New Jersey. The 1909 report of the Experiment Station gives the cost of producing 100 pounds of milk from cows with an average production of 8,561 pounds at \$1.94.

NORTHERN CHEMUNG COW TESTING ASSOCIATION FIGURES, THREE YEAR AVERAGES, 1911-13

The members of the Northern Chemung Cow Testing Association, most of whom are valley farmers, received during the period covered by the following table an average price of 3.6 cents per quart for their milk. In making this table, hay was valued at \$10 per ton, ensilage at \$4 per ton; pasturage at \$1.20 per month, and grain at actual cost.

Feed and Production Records

Averages of records from 278 cows from the books of the Northern Chemung Cow Testing Association.

Yield per cow, pounds	No. of cows	Pounds of milk	Pounds of butter fat	Average test percentage
4,000 or less.....	16	3,457	140	4.0
4,001 to 5,000.....	28	4,605	155	3.4
5,001 to 6,000.....	38	5,439	218	4.0
6,001 to 7,000.....	64	6,659	249	3.7
7,001 to 8,000.....	67	7,493	266	3.5
8,001 to 9,000.....	34	8,563	297	3.5
Over 9,000	31	9,836	330	3.4

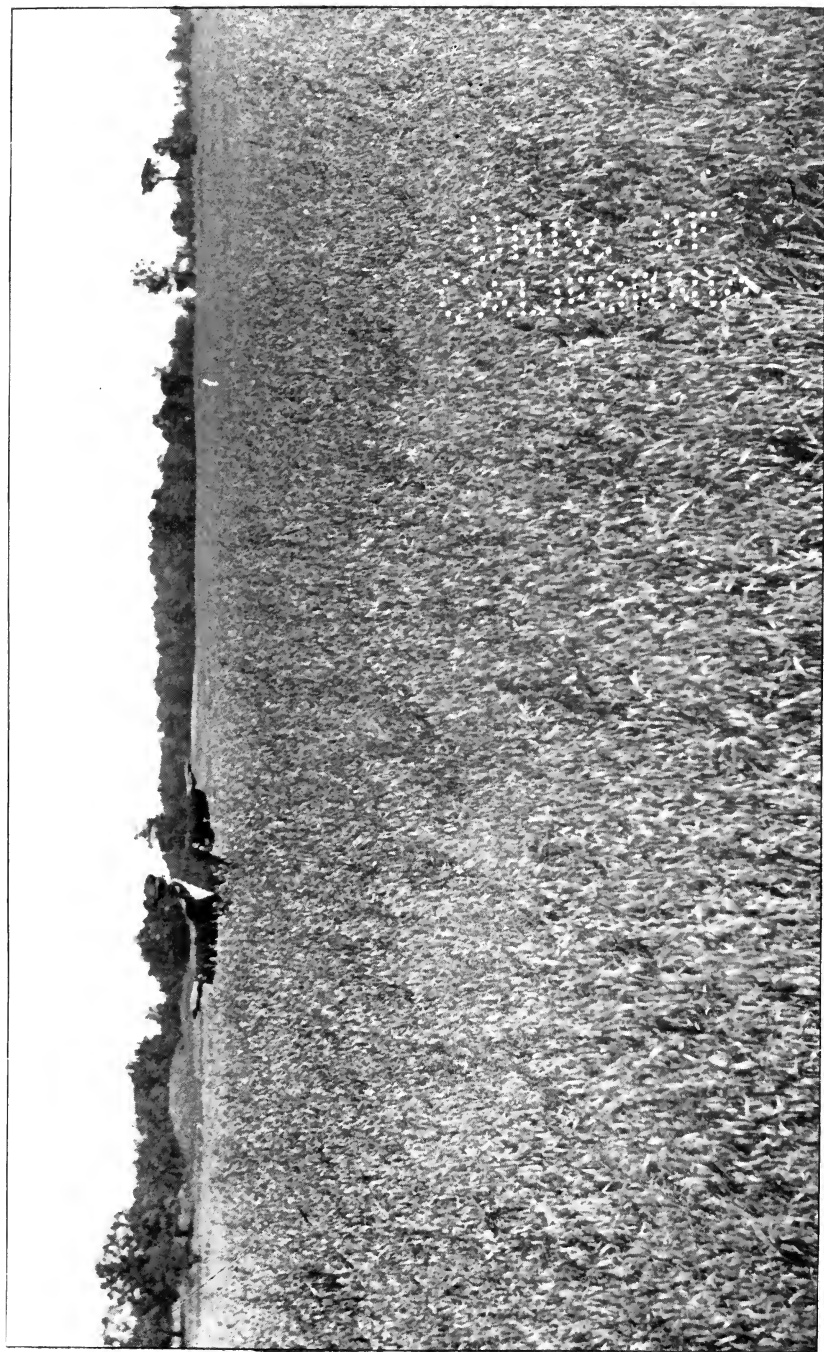
Yield per cow, pounds	Value of milk	Cost of roughage	Cost of grain	Cost of feed	Value of milk above cost of feed
4,000 or less.....	\$62	\$31	\$12	\$43	\$19
4,001 to 5,000.....	90	34	18	52	38
5,001 to 6,000.....	98	35	21	56	42
6,001 to 7,000.....	114	34	24	58	56
7,001 to 8,000.....	129	34	28	62	67
8,001 to 9,000.....	152	36	33	69	83
Over 9,000	171	34	37	71	100

It should be borne in mind that the above table is intended only to show the value of milk above feed costs. The feeds themselves are placed at a very low figure. If we deduct from these net returns the cost of shelter, interest, depreciation on cattle, cost of dairy equipment and miscellaneous expenses, it is evident that but a very small labor and capital return will remain in the case of the cow with the average production. A survey by the Farm Bureau of Chemung county, comprising 237 hill farms with six or more cows, shows average receipts per cow as follows: On 110 farms, \$37 per cow; 66 farms, \$62 per cow; 45 farms, \$87 per cow; 16 farms, \$119 per cow. 115 valley farms in the same county, with six or more cows showed the following gross returns: 15 farms, \$42 per cow; 21 farms, \$63 per cow; 27 farms, \$87 per cow; 32 farms, \$118 per cow.

AGRICULTURAL SCHOOL EXPERIENCE

The New York State School of Agriculture at St. Lawrence University, with an accurate system of bookkeeping on its commercial farm with a herd averaging over 7,000 pounds of milk per cow and crediting the calves and manure at high value, succeeded in practically balancing its debit and credit account, as shown by the following statement:

The following table speaks for itself. The monthly sales with lbs. of milk and price per lb. are recorded and also all the expenses incident to the feeding, maintaining and caring for a herd of cows. The values for milk are the prices received from actual sales.



"Some oat crop," said the photographer. This picture was taken on the Olney farm near Oneida. Yield 55 bushels to the acre. Oats average $31\frac{1}{2}$ bushels per acre in this State



COST OF PRODUCING MILK

Herd, 20 Grade Holsteins and Ayrshires. Fiscal Year, June 1st, 1911, to May 31st, 1912.

Herd, Dr.

Pasture, 21 head at \$7.00.....	\$147 00
Rent of bull.....	10 00
Soiling feed at cost.....	126 92
Ensilage, 82¼ tons at \$6.....	493 50
Hay, 105½ tons at \$15.....	159 37
Straw, 11 tons at \$5.....	55 00
Milking, drawing milk and care of cows.....	530 51
Grain, 13 1/6 tons.....	482 27
Ice.....	30 00
Miscellaneous expense	12 34
Depreciation herd.	100 00
Rental of barn.....	60 00
Interest on investment.....	72 00

\$2,214 91

Herd, Cr.

June, 1911, 16,937 lbs. milk at \$1.....	\$169 37
July, 1911, 16,920 lbs. milk at \$1.10.....	186 11
Aug., 1911, 15,827 lbs. milk at \$1.30.....	205 74
Sept., 1911, 11,816 lbs. milk at \$1.35.....	159 51
Oct., 1911, 9,836 lbs. milk at \$1.60.....	157 36
Nov., 1911, 8,533 lbs. milk at \$1.80.....	153 59
Dec., 1911, 8,705 lbs. milk at \$1.80.....	156 69
Jan., 1912, 5,959 lbs. milk at \$1.70.....	101 10
Feb., 1912, 3,046 lbs. milk at \$2.00.....	60 92
Mar., 1912, 10,110 lbs. milk at \$1.60.....	161 76
Apr., 1912, 16,269 lbs. milk at \$1.38¼.....	224 91
May, 1912, 18,748 lbs. milk at \$1.38¼.....	259 19
Value of calves sold.....	25 38
Manure.	220 00

\$2,241 63

Total number pounds milk.....	143,206 lbs.	65,991 qts.
Average number pounds milk per cow.....	7,160 lbs.	
Average selling price per cwt.....	\$1.3997	.03037 per qt
Cost to produce milk per cwt.....	1.5466	.0335 per qt

If the production of this herd was brought down to an average of 5,000 pounds, the account would have shown a loss of over \$525. The Committee would also call attention to the item of depreciation of herd, \$100, contained in this statement which is probably an arbitrary bookkeeping entry; also the item of miscellaneous expense, \$12.34. It must be remembered that the agricultural school has at its service a competent veterinarian and miscellaneous dairy equipment, the cost and expense of which perhaps do not fully enter into this account. Some of the cows in this dairy produce from 8,000 to 10,000 pounds of milk each. It

seems doubtful that \$100 per year is an adequate allowance for depreciation of such a herd through a period of five years. The average return for milk from this herd is something over \$100 per cow. In considering this return, it must be borne in mind that the average return is fairly reflected by the evidence which shows that the average returns from 38 Cattaraugus county farms in 1915 were as follows: 13 farms showed average return, per cow, of \$47; 15 farms showed average return, per cow, of \$64; 10 farms showed average return, per cow, of \$93, as shown by the following table:

EFFECTS OF MILK RECEIPTS PER COW ON LABOR INCOME

(38 Cattaraugus Farms with Six or More Cows.)

Range	Milk receipts, per cow	Average	No. of cows	Total No. of acres	Labor income
Under \$55		\$47	16	200	\$185
\$55 to \$75		64	18	215	345
Over \$75		93	18	129	814

Range	No. farms	No. farms with labor incomes over \$100	Grain purchased per farm	No. farms having silos
Under \$55	13	1	\$272	1
\$55 to \$75	15	5	334	3
Over \$75	10	7	439	6

The costs of the agricultural school may also be somewhat influenced by the fact that production ranged from 18,000 pounds of milk for the month of May to 9,800 pounds in October, and to 3,046 pounds in February.

A STUDY OF FEED AND LABOR COSTS PER COW

Dr. Carl W. Larson of Columbia University has made a careful study into the economic factors controlling the cost of feed and labor per cow, per annum, which has been published by the Columbia University Press, and which Dr. Larson has kindly placed at the disposal of the Committee. The purpose of the study is to ascertain what it costs to produce milk under present prices and conditions and the author has availed himself of all surveys and investigations at hand to date and applied to them scientific

methods of study. His conclusions, based upon the year-round production, follow:

1,680 pounds of hay at 80 cents per 100 lbs.....	\$13 44
7,000 pounds of silage at 15 cents per 100 lbs.....	10 50
1,350 pounds of corn at \$1 per 100 lbs.....	13 50
900 pounds of distiller's grains at \$1.50 per 100 lbs.....	13 50
900 pounds of bran at \$1.05 per 100 lbs.....	9 45
900 pounds of oats at \$1.10 per 100 lbs.....	9 90
Pasture for season at \$5.....	5 00
Total cost of feed per year.....	<u>\$75 29</u>

These figures are assumed for a herd of Guernsey cows which average 1,000 pounds in weight, that give on an average 8,500 pounds of milk per year, and that the milk contains 5 per cent of butter-fat, and supply the requisite amount of proteins and energy-producing foods. And it should also be stated that the figures are only given to illustrate the formula deduced for determining the food quantities required, but in that view they are important. The evidence before this Committee would show that during the year 1916, grain foods commanded a higher price than the price units used by Dr. Larson. Under the conditions that prevail on the ordinary dairy farm, silage foods cannot be produced in the State of New York at 15 cents per 100 lbs., as the evidence before this Committee abundantly shows. On the labor item, Dr. Larson concludes as follows:

The cost of labor required to care for a cow a year is given by various authorities as follows: Truman (Connecticut Experiment Station), \$33.60; Minkler (New Jersey Experiment Station), one man for twelve cows at \$1.50 per day, or \$40 per cow, per year. Rassmussen (New Hampshire Experiment Station), \$22.33.

On specialized dairy farms, each man takes care of fifteen cows, or \$36 per cow, per year.

Hopper and Robertson (New York Experiment Station), estimate the cost at \$23.12 per cow, per year; or 154.5 hours a year, or 25.4 minutes per cow per day.

Thompson (Delaware County Bulletin) states that on dairies studied, 155 hours of labor were required to care for each cow and accompanying stock in herds of 20 or less, and 107 hours in herds of more than 40 cows. The cost was \$18.11 per year.

Johnson and Ford state the average cost of labor on certain Missouri farms was \$24.60 per year, per cow.

Professor Warren concludes that in well-managed dairies 150 hours are required per year, per cow, and that in a study of labor cost it is necessary to decide the kind of milk being produced and adds, "to increase the score of

the dairy from 42 to approximately 70 points, there may be in fifteen cow dairies an added expense of 5 cents per cow, per day, for labor."

Dr. Larson concludes, "It is therefore a fair and practical procedure to calculate the cost of labor on a basis of 20 cows per man, or to precalculate labor cost by dividing the cost of one dairyman per year by 20 to get the cost per cow. At a price of \$45 per month without board, the cost per cow is \$27. There are not available any accurate records covering long periods where actual time records show a decrease in cost due to the use of milking machines."

Cost of Building

The cost per cow for a barn varies in good dairies from \$25 to \$100, or more, per head. A 50 cow barn of modern construction can be built for about \$80 per head. This is for a good barn with proper ventilation system and modern sanitary arrangement for a specialized dairy capable of meeting the requirements for the production of a high grade of milk. A summary of the cost of building under these conditions would be as follows:

Interest \$80 at 5 per cent.....	\$4 00
Insurance \$80 at 3 per cent.....	24
Taxes \$40 at 2 per cent.....	80
Depreciation \$80 at 4 per cent.....	3 20
Total unit cost of housing.....	<u>\$8 24</u>

The Cost of Cattle

To build up permanent dairies, it is necessary to raise the cows, especially if the high-producing healthy herd is to be maintained. With the data available, we find the feed cost to raise a heifer to two years of age is \$47.51, which varies with conditions. They are used in order that the same basis of prices may carry throughout the study. The labor cost for two years would be \$9.45 per head. The other expenses, including interest, buildings, equipment, bedding, loss by death, and miscellaneous expense, amount to \$16.67 for the two years. This makes the total cost of raising the heifers, including feed, labor and overhead, \$73.63. These are the figures of Messrs. Bennett and Cooper of the United States Department of Agriculture. A credit of \$12 for manure for the two years, makes the net cost for a two-year-old heifer \$65.63. Mr. Truman figured the total cost of a two-year-old heifer to be \$70, but he added \$4 as the initial value of the animal, while Lindsey (Connecticut Experiment Station) found the cost under conditions of higher cost of feeds and with an initial charge of \$4, to be \$74.24.

That the heifer coming into the herd at a cost of \$65, it must next be determined how long she will likely be in the herd as a profitable producer of milk, and how much she will be worth at the end of her period of profitability as a milk producer. The amount of depreciation per year will depend upon the number of years the cow is profitable and is the difference between the cost of the cow at entry into the herd and her sale price as beef.

* * * On the average, the economic life of a dairy cow is much shorter than is generally believed and is a large item of expense, especially where high cost animals are kept. The average life, according to Rassmussen, is about six years. In herds in Delaware county, changes in cows indicated the average productive life was only 3.6 years, while the opinions of 174 farmers

estimated it at 5.8 years. Studies in farm management by the United States Department of Agriculture showed that the dairy cows of Chester county, Pennsylvania, remained in a herd 4.34 years, while in Lenawee county, Michigan, they remained 4.52 years. A study of 52 Cow-Testing Association records reporting the ages of 13,856 cows shows an average economic life of 4 17/20 years. Dr. Larson concludes, "This furnishes a figure which should be very near to the expected, and if the cost of cows is computed on the basis of depreciation, which replaces them every five years, the herd will be maintained."

The total annual cost of cows is, therefore, as follows:

Depreciation	\$5 00
Insurance, \$65 at 3 per cent.	31
Taxes, \$32.50 at 2 per cent.	65
Interest, \$65 at 5 per cent.	3 25
	<hr/>
Total cost per cow, per year.	\$9 21
	<hr/>

COST OF BEDDING

From the same studies, and in the same manner Dr. Larson computes the cost of bedding at \$3.25 per cow, per year; cost of sire, \$3.51 per year; miscellaneous expenses, as follows:

Ice, 1 ton at \$1.	\$1 00
Wood and coal	75
Utensils	1 00
Supplies	1 00
Veterinary services and tester	2 50
Hauling and transportation	18 00
	<hr/>
Total miscellaneous expense	\$24 25
	<hr/>

VALUE OF CALVES AND MANURE

Professor Larson concludes \$3 per year for each cow in the herd is a fair credit for the calf. Under conditions where cows are well supplied with concentrated feeds and where the manure is properly cared for, a cow of 1,000 pounds weight will furnish \$20 worth of added fertility per year. The practice in England, which is covered by a law affecting landlord and tenant, gives a tenant credit for all manure resulting from purchased feeds to stock on the basis of three-quarters of the total value of the phosphoric acid and potash in the feed allowed for all unused manure. A credit of 70 per cent of the total value of nitrogen is allowed when the stock is fed on pasture, and only 50 per cent when it is fed in the

barnyard. When one crop has been grown after application of the manure, a credit of one-half the above amounts is allowed. There are tables in the English publications referred to above giving the amounts of nitrogen, phosphoric acid and potash voided from the various grains fed to dairy cows. Given the quantities of feed consumed and the prices for the elements needed on a particular farm, the real value of manure under particular conditions of sale and feeding can be definitely ascertained.

APPLICATION AND USE OF FORMULA

The costs and credits incident to milk production may now be summarized. Under the conditions stated for each item which includes the particular size and kind of cow producing 8,500 pounds of 4 per cent milk, with feeds at stated prices, with a system of management given, and with a good barn well equipped for the production of high-grade milk, cost records will show the following as actual costs in the production of milk:

Feed	\$75 29	
Labor	27 00	
Buildings	8 24	
Cattle	9 21	
Bedding	3 25	
Sire	3 51	
Miscellaneous expenses	24 25	
	<hr/>	
Total		\$150 75
Credits:		
Calves.	\$3 00	
Manure	20 00	
	<hr/>	23 00
Net cost per cow, per year.		<hr/> <hr/> \$127 75

The average standard of production of these cows is assumed at 8,500 pounds per year, which was also the average production of the 985 Guernsey cows used in the Wisconsin test, on which the data in this study are based. Figuring 2.15 pounds to the quart, the production is 3,441 quarts. Thus, the cost of production per quart is about 3¾ cents.

Prices Paid

The Sheffield Farms, Slawson-Decker Company of New York, recently announced its price schedule for milk as follows:

1915	
April.	\$1 75*
May.	1 40
June.	1 40
July.	1 50
August.	1 65
September.	1 75

* NOTE BY COMMITTEE.—These prices were probably for 4.5 milk and subject to deductions of three cents per point below 4.5.

1916

April.	\$1 70
May.	1 40
June.	1 40
July.	1 60
August.	1 75
September.	1 80

It should be further pointed out that the price for feeds in the foregoing tables are somewhat lower than prevail at the present time. At prevailing prices for feed (March, 1916), the costs would be increased to \$90.49, and the total cost to \$143.36, and the profit per cow may be determined as follows:

Sale price of 8,500 lbs. of milk.	\$170 00
Cost of production of 8,500 lbs. milk.	142 95
Profit per cow	\$27 05

* * * For the standard herein, however, unusually high producing cows were selected. The average production of the cows of the United States is only about 3,000 pounds. Animals of this sort present a very different outlook to the business. We may assume that cows of this standard are used to supply milk to the same market. By referring to the preceding chapter, we find the food for maintenance would be the same and for 3,000 pounds of milk is as follows:

1,680 pounds of hay at 80 cents per 100 lbs.	\$13 44
7,000 pounds of silage at 15 cents per 100 lbs.	10 50
450 pounds of corn at \$1 per 100 lbs.	4 50
300 pounds of distiller's grains at \$1.50.	4 50
300 pounds of bran at \$1.50 per 100 lbs.	3 15
300 pounds of oats at \$1.10 per 100 lbs.	3 30
Pasture for season at \$5.	5 00

Total cost of feed for the year.	\$44 39
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This would be a ration adequate to supply the needs of the animal.

The cost for feed, therefore, would be \$30.90 less per year. The cost of labor, buildings, bedding, and miscellaneous expenses would be the same, while the cost of sires and cows would be decreased only by the initial cost of the latter, which would only decrease the cost per unit cow by a few cents. The cow would cost as much to raise, but if purchased, could be obtained for lower price. The total annual cost then to keep cows of this kind would be \$97.26. The milk at \$2 per hundred pounds would bring \$60, which would make a loss of \$37.26 per cow, per year. This is what may be expected at present prices of feed and labor from cows that produce no more than the average cow of the United States, when a dairyman attempts to produce milk of good grade in good barns, using full grain rations and producing year-round feeding. * * An application of the formula warrants the following conclusions:

1. Under present prices of feed and labor, a herd of high-producing cows will, when properly managed, return 5 per cent interest on the capital invested in a good plant, and an additional 5 per cent for services of the manager, not included in regular labor charge.

(NOTE BY COMMITTEE: This is the 8,500 pound cow whose production is insignificant in comparison with the needs of our inhabitants.)

2. The average cow of the United States does not produce enough milk to pay the cost of production when managed under the same conditions and equipped to produce high-grade milk.

(NOTE BY COMMITTEE: At present prices.)

3. Where the herd uses feeds that cannot be marketed, or a cheaper system of management is used, and where the cows are housed in cheaper buildings and given less care, they may pay the cost of production of milk.

4. Under some conditions, summer dairying would be more profitable than the all-year practice.

5. It does not pay to use intensive methods or winter grain feeding with low-producing cows.

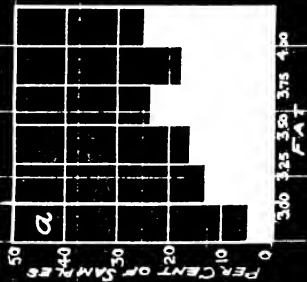
6. The value of pasture for dairy cows has been under-estimated.

The conclusions of Professor Larson above given are probably as complete and thorough an examination and study of the printed data available upon those subjects to this date as can well be made. *The conclusion which is of greatest importance to this work and to the dairymen generally of this State in that relating to the 3,000 pound cow, which, with milk selling at \$2 per hundredweight, would make a loss of \$37.26 per cow, per year.* The fact is, however, as the milk prices hereinafter returned will show, that for a series of years prior to 1916, the average dairyman received little more than 3 cents per quart. If, therefore, we take Dr. Larson's figures for the cost of food, housing, investment and labor per cow per annum of \$97.26, and assume that cost is applied to a 4,500 pound cow, which milk would have the average selling price per hundred weight that the Commercial Farm of the School of Agriculture in connection with St. Lawrence University received in 1912, to wit: \$1.40 per hundredweight, the milk of this cow would then bring \$63, showing a net loss of \$34.26 per cow, per annum.

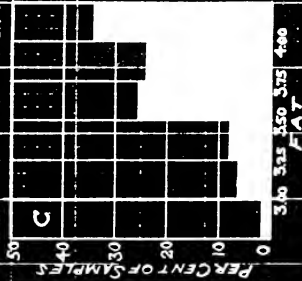
WHARTON VALLEY SURVEY

A survey of 98 farms in Otsego county in the year 1914 was made by the farm management demonstration agents of the United States Department of Agriculture and the State College of Agri-

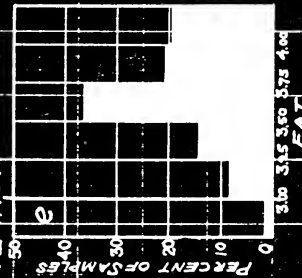
FIG. 1.
CHARTS SHOWING THE CHEMICAL QUALITY OF NEW YORK CITY
MILK FOR FOUR YEARS.



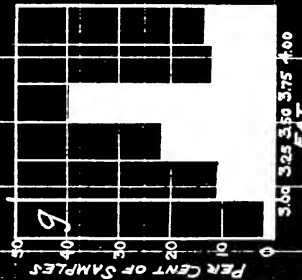
1905



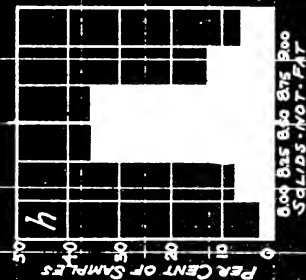
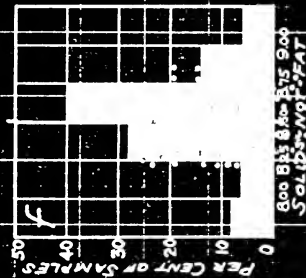
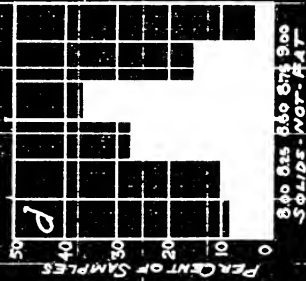
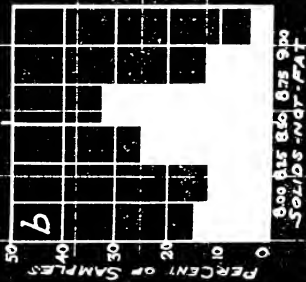
1906



1912



1915



o vnt
o vnt

culture, with the assistance of Messrs. Scoville, Clark and Burdge, and Mr. Floyd S. Barlow, manager of the Otsego County Farm Bureau. The results of this survey have been published and it is known as the "Wharton Valley Survey."

It was taken in the Wharton Valley beginning at the village of Pittsfield and extending two miles north of West Exeter in the town of Exeter. The records include practically nine-tenths of the farms in this area, along with a few that lie immediately back and might be classified as hill farms. There is a State road in the valley connecting Edmeston with West Winfield. It is an old established dairy section with an abundant supply of milk receiving stations, and it is in a region where cattle have been long and carefully bred. Twenty-two of the farms kept pure bred Holstein cattle, of which an average of 17 on each farm was registered pure breds.

The average receipts per cow from the sale of milk and its products on these 98 farms in 1914, was \$82. The average receipt per cattle unit from milk, and cattle increase was \$84. On 21 of the farms, the receipts per cow averaged \$51. Twenty-two of the farms, the receipts per cow averaged \$67. Twenty-nine of the farms the receipts per cow averaged \$85. Twenty-six of the farms, average receipts per cow were \$102.

Applying Dr. Larson's formula to the average returns per cow to the Wharton Valley survey, would establish that each one of the 98 dairy farms lost money upon their cows. In other words, the department in making this survey have assumed labor costs at a less sum than Larson assumes to be sound political economy; thereby the survey shows in some cases a fair labor return. On 8 of these farms, the labor return was less than nothing. Thirty-three of them showed labor incomes from \$100 to \$500. Thirty-three of them showed labor incomes, according to the cost units adopted, of \$501 to \$1,000. Ten showed labor incomes of \$1,000 to \$1,500. Ten showed labor incomes of \$1,500 to \$2,000. The report concludes: "About one-half of the men in Groups 1 and 2 had better sell their farms, put the money out at interest, and hire out."

DUTCHESS COUNTY SURVEY

A detailed study was made of a year's business of 66 Dutchess county farms in 1914 by the same organizations in co-operation with various other agencies, under the direction of F. H. Lacy, agent of the United States Department of Agriculture at Poughkeepsie. From that survey it appears that 12 out of 66 farms made labor incomes of \$1,000, or over. Twenty made labor incomes of \$400 to \$1,000; 20 made from \$1 to \$400; 14 failed to make expenses and interest. The average of all labor incomes was \$544 on the 66 farms. On 25 of these farms, the receipts per cattle unit from the sale of milk averaged \$59. On 25 of the farms receipts per cattle unit from the sale of milk averaged \$90. On 16 of the farms, the receipts per cattle unit from the sale of milk averaged \$97, and this survey concludes: "While the milk receipts are slightly higher on the exclusively dairy farms, the total receipts are \$562 less than on the farms deriving only from 60 to 79 per cent. of the income from milk." The method of calculating labor income on this survey is shown in the following table:

TABLE 8 — Method of Calculating Labor Income.
Averages from 66 Dutchess County Farms, 1914.

<i>Receipts</i>	
Crop sales	\$358
Milk sales	1,560
Other stock receipts.....	614
Miscellaneous receipts	121
Increase in feed inventory.....	70
Total receipts	\$2,723
<i>Expenses</i>	
Hired labor	\$394
Board furnished hired help.....	85
Family labor	53
Purchased hay	25
Purchased feed	475
Seeds.	60
Fertilizer.	50
Other expenses	318
Total expenses	1,460
Farm income	\$1,263
<i>Capital</i>	
Value of farm, 186 acres.....	\$10,629
Live-stock.	2,590
Machinery and tools.....	629

Feed and supplies.....	\$273
Cash to run farm.....	254
Total capital	<u>\$14,375</u>
Interest on capital at five per cent.....	<u>\$719</u>
Labor income	<u>\$544</u>

The factor sheet on these farms is as follows:

TABLE 10 — Factor Sheet

Average of 66 Dutchess County Farms, 1914

Labor income	\$544
<i>Size</i>	
Total capital	\$14,375
Total acres	192
Acres in crops	86
Number of cows	16
Number of men on year basis, including operator.....	2.4
Average number of work horses.....	4.5
<i>Cow Production</i>	
Milk and its products sold, per cow.....	\$98
Receipts per cattle unit.....	86
<i>Crop Yields</i>	
Acres of corn for grain.....	7
Yield, bushels per acre	35
Acres of silage corn	6
Yield, tons per acre	10
Acres of potatoes.....	.8
Yield, bushels per acre	129
Acres of oats	8
Yield, bushels per acre of oats.....	36
Acres of hay	47
Yield, tons per acre of hay.....	1
Per cent. crop yield.....	100
<i>Sources of Income</i>	
Crops.....	\$357
Milk and its products.....	1,560
Other cattle receipts.....	327
Miscellaneous receipts.	121
Per cent of total receipts derived from milk and its products.....	<u>.57</u>

CHAUMONT BAY AREA, JEFFERSON COUNTY FARM BUREAU SURVEY

The area covered in this survey includes nearly every farm on all the roads from a point about one mile west of the village of Limerick from the town line of Cape Vincent in the Fox Creek district, and from the shore of Chaumont Bay to a line running about one and one-half miles north and parallel to the New York Central Railroad. Transportation and shipping facilities are good, except on the unimproved clay roads in wet season. On

the whole, the farms in the district are prosperous and their farm operations are rewarded with profits above the average of the farms in the county. The survey covers 95 farms. The conditions are generally applicable to a considerable number of Jefferson county. Labor income is the pay that the farmer receives for his work. Deducting both interest and expenses from the farm receipts, leaves the farmer's labor income:

TABLE I—Method of Figuring Labor Income
Averages of 95 Jefferson County Farms near Chaumont Bay for the Year 1914

<i>Receipts</i>	
Hay, 45.9 tons at \$15.80.....	\$725
Oats, 300 bushels at 53 cents.....	160
Other crops	29
Milk.	579
Cattle (increase and sales above purchases).....	244
Other stock	124
Miscellaneous.	55
Increase in feed inventory.....	55
Total.	\$1,971
<i>Expenses</i>	
Hired labor	\$109
Board, hired labor.....	57
Family labor	65
Grain, feeds	42
Seeds.	35
Taxes.	94
All else	204
Total.	606
Income from capital and operator's labor.....	<u><u>\$1,365</u></u>
<i>Capital</i>	
Value of farm, 173 acres.....	\$10,353
Value of live-stock.....	1,773
Value of machinery.....	744
Value of feed and supplies.....	283
Cash to run farm.....	152
Total capital	<u><u>\$13,305</u></u>
Interest on capital at five per cent.....	<u><u>\$665</u></u>
Labor income	<u><u>\$700</u></u>

Variations in Labor Incomes

Five of the 95 farmers failed to make a labor income. That is, the interest and the expenses exceeded the receipts. The lowest labor income was a minus \$325.

TABLE II—Variation in Labor Incomes.

5 farms made labor incomes of less than nothing	
24 farms made labor incomes from \$1 to \$400	
29 farms made labor incomes from \$401 to \$800	
25 farms made labor incomes from \$801 to \$1,200	
12 farms made labor incomes over \$1,200	

Almost one-third of the farmers made less than hired men's wages or below \$400, a little more than a third over \$800, and about a tenth above \$1,200. The highest income for labor was \$2,547.

It appears by the following table that the average receipts per cow on these 95 farms was \$61:

TABLE III — Factor Sheet

Average of 95 Farms, near Chaumont Bay, for 1914

Labor income	\$700
(1) <i>Size</i>	
Number of acres in crops.....	129
Number of acres in farm.....	173
Number of acre sin pastures.....	38
Total capital	\$13,305
Number of cows.....	9½
Number of workers (on year basis).....	1½
Average number of work horses.....	4
(2) <i>Crop Yields</i>	
Silage corn, number of acres.....	4
ton per acre.....	7
Oats, numbers of acres.....	32
bushels per acre.....	33
Hay, number of acres.....	89
ton per acre.....	.85
Crop yield compared with acreage	100%
(3) <i>Cow Receipts</i>	
Milk and it product sold, per cow.....	\$61
Pounds of milk sold, per cow.....	4,600
(4) <i>Efficiency in Use of Labor and Economy in Expense</i>	
Number of crop acres per man.....	86
Number of crop acres per horse.....	32
Number of crop acres per \$100 invested in machinery.....	17
Expense per animal, acre unit.....	\$31
Interest expense per animal, acre unit.....	12
Labor expense per animal, acre unit.....	13

By reference to Table I of the Chaumont Survey, it appears that the labor costs average on these farms, as computed by the survey is \$231. This labor return is not sufficient to keep the laborers, both men, women and children on the farms. This is shown by the result. The hired help, the young men and women and the farm-wives, not getting a sufficient labor return in the dairy industry, instinctively abandon the farm and become consumers instead of producers. Dr. Larson's analysis of the actual economic labor cost and his formula for labor cost, if applied to the Jefferson County Survey, would show a much higher economic cost than the \$231 average hired labor, board and family labor allowed on these 95 farms.

M. E. CHUBBUCK, Farm Bureau Agent of Chemung county, called as a witness before the Committee, testified:

"There have been taken in this county, since 1912, about one thousand farm management records. I have tabulated these records, not using those taken in 1915 and 1916. The records of those two years are of selected farms and the results from them would be better than the average, but we have averaged 458 hill farms and 185 valley farms in Chemung county for the years 1911, 1912 and 1913, and on those farms we have worked out what the farmer had left as pay for his work after the expenses had been deducted from the receipts, and five per cent interest on his capital. We call the balance, labor income. These are not selected farms, but taken as they come. I have made this computation as accurate and true as shown by the Farm Bureau records.

EXHIBIT 12

AVERAGE FARMING CONDITIONS AND COST OF KEEPING A COW IN CHEMUNG COUNTY.

The best figures available to the Chemung County Farm Bureau on the average returns from dairy farming in Chemung county are from the farm management records taken for the years 1911, 1912, 1913, 1914 and 1915. In the following statistics, however, records for 1914 and 1915 are not included for the reason that these records are of selected farms and profits are larger than to the average of the region.

Chemung county is divided into two agricultural sections, the valley of the Chemung river and its tributaries, and the hill region. Conditions in the valley regions are better and profits from farming are large. The principal reasons for this difference are primarily better average soils, the sale of a large portion of the milk produced in Elmira at retail prices or prices better than the wholesale New York prices, and a system of farming which is on the average better balanced than the hill region.

The farming conditions in the hill region may be judged from the following table:

Average of 458 Hill Farms for 1911, 1912 and 1913

Capital.	\$5,461
Gross income	\$1,090
Expenses.	540
Income from capital and operator's labor.	\$550
Interest on capital at five per cent.	273
Labor income	\$277
Average number cows.	7.5
Receipts per cow.	\$56

The capital invested on the average hill farm in Chemung county is \$5,461. This represents the investment in land, buildings, livestock, machinery, and feed, and cash to run the farm. The total average receipts are \$1,090. This is the income from the products sold from the farm and any increase in the value of stock, grain or other supplies. The expenses for the year are \$540.

These include the regular cash outlay together with the value of board furnished hired help, decrease in inventory of stock and the estimated value of such work as was done by members of the family, not including the operator's own time. The receipts minus the expenses are \$550. This difference represents what the farmer received for his labor and what the capital invested in the business earned. A common rate of interest on farm mortgages is five per cent. At this rate the interest on the average farm capital amounts to \$273. This interest subtracted from the net income of \$550 leaves \$277 as the farmer's labor income. This amount is comparable to wages paid a hired man when house, garden, milk and firewood are furnished. It should not be compared to city wages. Investigations tend to show that the portion of the farmer's living furnished by the farm is often of as much or greater value than \$277, the average labor income on 458 hill farms.

The average receipts per cow in the hill region for the farms of which records have been taken, exclusive of the milk and butter consumed on the farm, were \$56.

The averages for the valley region for the years 1911, 1912 and 1913 are as follows:

Average of 115 Valley Farms

Capital.	\$9,749
Gross income	\$1,975
Expenses.	882
Income from capital and operator's labor.	\$1,093
Interest on capital at five per cent.	486
Labor income	\$607
Average number of cows.	9
Receipts per cow.	\$83

The percentage of farms making certain labor incomes is shown in the following table.

Variation in Labor Income in Hill and Valley Regions

	Number of valley farms	Percentage of total number	Number of hill farms	Percentage of total number
Labor income				
Less than \$200-	10	5.4	49	8.7
\$200- to 0	16	8.6	55	12.0
\$1 to \$200	27	14.6	125	27.3
\$201 to \$400	27	14.6	115	25.1
\$401 to \$600	25	13.5	52	11.4
\$601 to \$800	21	11.5	24	5.2
\$801 to \$1,000	15	8.1	23	5.0
\$1,001 to \$1,500	30	16.2	14	3.1
\$1,501 to \$2,000	8	4.3	3	.7
Over \$2,000	8	4.3	7	1.5

About half the hill farmers made labor incomes less than \$200. Not quite one-third of the valley farmers were in this group. About one-fourth of the valley farmers made over \$1,000 and only one in twenty of the hill farmers made as much.

Cost of Keeping a Cow

With the object of determining the cost of caring for a cow, the following data was obtained from the valley and hill farms keeping over six cows. Six was made the minimum for the reason that a farm with less than six cows would be apt to depend for its principal income on some other source than dairying. The accuracy of the tables used depends on the method of determining the cost of keeping an average animal unit. Animal unit is determined in the following manner:

One cow, bull, steer or horse equals one animal unit;
 Two calves, heifers, or colts equal one animal unit;
 Seven sheep equal one animal unit;;
 Fourteen lambs equal one animal unit;
 Five hogs equal one animal unit;
 Ten pigs equal one animal unit;
 One hundred chickens equal one animal unit.

From the total amount of feed produced on the farm was deducted that part sold or carried over to the following year. The balance must have been fed on the farm. To this was added the feed purchased. The price allowed for such feed was figured at the value in the barn, based on cost accounts that were the average for several years, and on opinions of farmers. The figures used are given below:

Corn:		
Grain	\$	66 per bu.
Silage	4	12 per ton
Fodder	3	00 per ton
Wheat		92 per bu.
Rye		68 per bu.
Oats		46 per bu.
Buckwheat		77 per bu.
Hay	11	38 per ton
Straw, estimated at 10 tons per farm	5	00 per ton

The above measures for computing value of feed consumed by stock are those used by Cornell University and are taken from the average of a large number of cost accounts kept by the Farm Management Department of the University. They are the most accurate measures available.

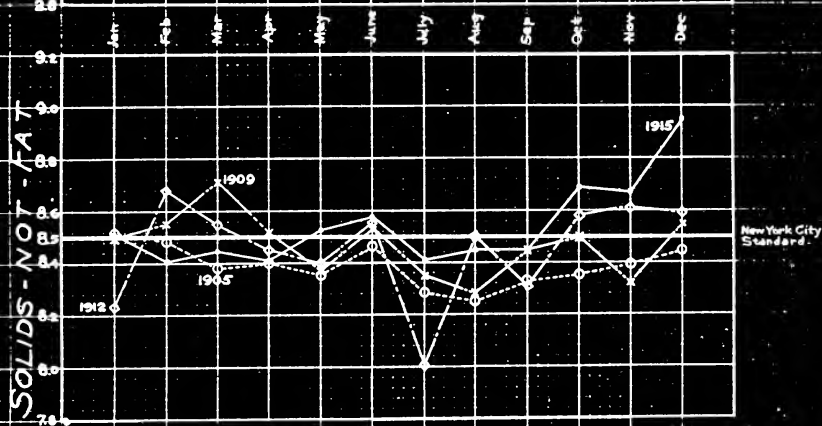
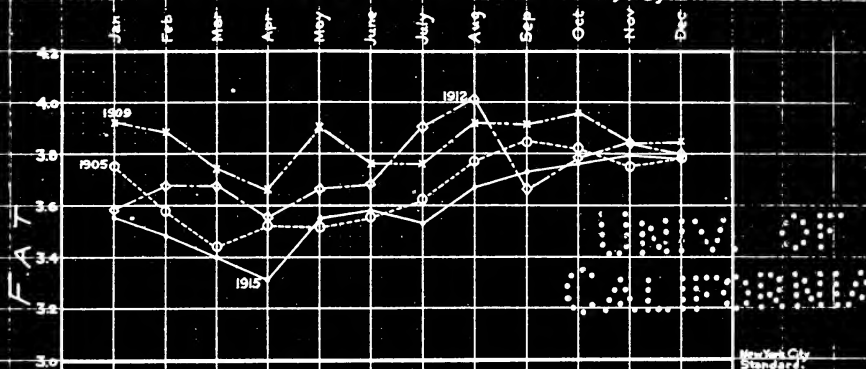
In the following table the farms are grouped by receipts per cow:

Cost of Keeping an Animal Unit

Number and situation of farms.	Receipts per cow.	Value of total feed.	Milk and butter receipts per cow.	Value of milk above cost of feed per cow.	Labor Income
237 hill farms:					
	\$50 and less	\$45	\$37	\$ 8-	\$138
	\$51 to \$75	51	62	11	325
	\$76 to \$100	60	87	27	496
	Over \$100	66	119	53	924
115 valley farms:					
	\$50 and less	49	42	7-	269
	\$51 to \$75	55	63	8	270
	\$76 to \$100	68	87	19-	747-
	\$101 to \$125	71	110	39	1,038
	Over \$125	76	140	64	2,209
		<u>==</u>	<u>==</u>	<u>==</u>	<u>==</u>

FIGS. 2 & 3.

CHARTS SHOWING THE AVERAGE MONTHLY PERCENTAGES OF FAT AND SOLIDS-NOT-FAT IN NEW YORK CITY MILK FOR THE YEARS 1905, 09, 12 & 15



Notation:

1905—○— 1909—+— 1912—◇— 1915—●—



The averages for the hill and valley regions are given below.

No. farms.	Cost of Feed per animal unit.	Milk and Butter Receipts per cow.	Profit over Cost of Feed.	Average Number Cows.
Hill Farms				
237	<u>\$47</u>	<u>\$62</u>	<u>\$15</u>	<u>11</u>
Valley Farms				
115	<u>\$61</u>	<u>\$88</u>	<u>\$27</u>	<u>12.7</u>

According to computations made by the animal unit system, which we have every reason to believe is correct, the cost of feed for one animal unit or cow in the hill region is \$47 and the milk or butter receipts per cow \$62, leaving a profit of \$15 over the cost of feed.

Milk investigations in other regions tend to show that the cost of feed is about 70 per cent of the total cost of keeping a cow. Other charges are for labor, milk hauling, depreciation, interest on buildings, dairy equipment, and miscellaneous charges. If this \$47 then represents 70 per cent of keeping a cow, the total cost on this basis is \$67. If this assumption is correct, the average cow in the hill region is kept at a loss of \$5 per cow, when sales of milk and butter alone are considered.

An interesting statement of results is furnished the Committee by George M. Welles and Son of Chemung county, the figures being for a herd of thoroughbreds with an average production of over 9,000 pounds for two years.

EXHIBIT 13

COST OF PRODUCING MILK

For the past two years our herd has consisted of twenty cows that have milked for two years and whose records have been kept by the Chemung Valley Cow Testing Association.

	1914-5	1915-6	Average
1. Years milk by herd.....	163,148 lbs.	198,864 lbs.	181,001 lbs.
2. Average milk per cow....	8,157 lbs.	9,943 lbs.	9,045 lbs.
3. Price per cwt.	\$1.69	\$1.55	\$1.62
4. Total receipts	2,759.00	3,101.00	2,930.00
5. Receipts per cow	137.95	155.05	146.50
6. Hay consumed per cow....	1,852 lbs.	1,840 lbs.	1,846 lbs.
7. Value at \$14 per ton.....	12.96	12.88	12.92
8. Pasture 6½ mo. at \$2.....	13.00	13.00	13.00
9. Ensilage fed	7,722 lbs.	8,075 lbs.	7,898 lbs.
10. Worth at \$4 per ton.....	15.44	16.15	15.79
11. Mixed grain ration fed.....	2,463 lbs.	2,215 lbs.	2,339 lbs.
12. Yearly depreciation (see note)	15.00	15.00	15.00
13. Cost of grain fed each cow.	36.18	32.77	34.47
14. Barn investment per cow.....			100.00
15. Depreciation barn, 5 per cent; interest 5 per cent...			10.00
16. Investment in each cow \$200; interest at 5 per cent..			10.00
17. One ton bedding per cow.....			8.00
18. Insurance on cattle per cow.....			50
19. Veterinary fees			1.00
20. Man labor per cow (15 days' time).....			20.00
21. Horse labor per cow (2 days' time).....			2.00

NOTE.—As the average life of a cow is 7 or 8 years milking and 2 growing she will depreciate about 10 per cent. but should still be worth \$50 for beef, so a \$200 cow depreciates \$150 in ten years, or \$15 per year, as above.

COST OF PRODUCING MILK — SUMMARY

Receipts Per Cow

Value of milk per cow, 9,045 lbs. at \$1.62 per cwt.....	\$146 50
Value of 17½ tons manure at \$2.....	35 00
Value of calf when 5 days old.....	5 00
Total receipts per cow.....	<u>\$186 50</u>

Expenses Per Cow

Hay, 1,846 lbs. at \$14 per ton.....	\$ 12 92
Pasture, 6½ months at \$2.....	13 00
Ensilage, 7,898 lbs. at \$4 per ton.....	15 79
Grain, 2,339 lbs. at \$1.47 per cwt.....	34 47
Housing (Fig. 15)	10 00
Depreciation (Fig. 12)	15 00
Interest on cow (Fig. 16).....	10 00
Bedding 1 ton at \$8.....	8 00
Insurance (Fig. 18)	50
Veterinary fees (Fig. 19).....	1 00
Man labor (Fig. 20).....	20 00
Horse labor (Fig. 21).....	2 00
Bull service	2 00
Total expenses (barring accidents and disease).....	<u>\$144 68</u>
Profits	<u>\$ 41 82</u>

BUT! Remember these figures are for cows which average nearly twice that of the general run of cattle in Chemung county. We believe that if it were not for the fact that the farmers feed their home grown produce without regarding it a salable commodity at the market price and that dairying yields a regular monthly income, that many now engaged in it would quit. We further believe that without the added income from pure bred calves sold that there would be a very close margin for profits from even these cows at the present prices of milk, especially when it is true that the greater the milking ability of a cow the more susceptible she is to accidents, sickness and disease.

It might be interesting to know what data is used in this statement to reach the conclusion that the average productive life of a dairy cow is seven or eight years. It is interesting to compare this with Dr. Larson's limit of five years. If Dr. Larson's figures are sound, the depreciation in the Seven Pines herd would be \$30 per year instead of \$15 per animal — an increase of \$15. There is not included in the expenses, per cow, the following items, which are computed by Dr. Larson, as follows:

Ice, 1 ton at \$1.....	\$ 1 00
Wood and coal	75
Utensils, interest and depreciation.....	1 00
Supplies, salt, medicines, etc.....	1 00
Veterinary service and tester.....	2 50
Hauling and transportation	18 00

Total miscellaneous expense..... \$24 25

Deducting the \$1 veterinary service above, gives us \$23.25. Applying Dr. Larson's formula to this statement, we would have the following increased charges per cow:

On depreciation	\$15 00
Difference on calf	2 00
Difference in labor item.....	5 00
Miscellaneous expense	23 25

Total \$45 25

Total expenses, per cow, \$189.93, or a net loss of \$3.43 per cow, and this after crediting the manure at \$15 per year over the economic value as computed by Dr. Larson. Deducting that excess allowance of \$15, the net loss per cow would be \$18.43 per year.

The Committee is not contending for the acceptance of either Dr. Larson's proposition or the figures above given, which are largely made up from the records of the Cow Testing Association, but merely calls attention to them for the purpose of permitting a comparison of the conclusions reached by various parties studying the question. Cost and production accounts on eight herds in Tioga county were submitted to the Committee, as follows:

HERD No. 1 — 30 Cows

Expenses

Interest on \$2,500 at 5 per cent.....	\$125 00
Bull service	60 50
Bedding	80 00
Hauling cost	300 00
Labor, milking and care.....	1,088 00
Equipment costs	47 90
Building costs	95 00
Miscellaneous costs	42 50
Feed	1,840 00

Total \$3,678 90

Receipts

Increase inventory	\$20 00
Milk sales	3,000 00
Cattle.	655 00
Total	<u>\$3,675 00</u>
Net loss	<u>\$ 3 90</u>
Pounds of milk produced.....	<u>204,000</u>

If these figures are correct, this dairy had an average production of 6,800 pounds per cow. The lack of study of the factors involved in ascertaining costs is clearly indicated. For instance, the unit of labor cost was \$36 per cow. The value of food-stuffs was \$61.33 per cow, which is low according to Dr. Larson's formula for cows with such large production. The equipment costs are about \$1.50 per cow; building cost about \$3 per cow; miscellaneous charges, including hauling, less than \$12 per cow, as against \$24.25 computed by Dr. Larson. No credit is given for manure.

Herd No. 2 of this survey consisted of 17 cows, and the following figures are presented:

Expenses

Interest on \$4,090 (herd) at 5 per cent.....	\$204 50
Bull service	4 50
Bedding	156 00
Hauling	100 10
Labor.	788 20
Equipment costs	4 68
Building costs	246 00
Miscellaneous	130 00
Feed cost	2,320 00
Total	<u>\$3,953 96</u>

Receipts

Increase inventory	\$410 00
Milk sale	2,014 00
Cattle sales	216 00
Total receipts	<u>\$2,640 00</u>
Net loss	<u>\$1,313 96</u>

Apparently this milk averaged \$1.68 per hundredweight. The feed cost exceeded \$130 per cow. The labor cost exceeded \$46 per cow. These figures are interesting as showing the necessity

of accurate knowledge of cost accounting and a study of the subject by those interested. They may be well compared with Herd No. 3 in the same survey, consisting of 22 cows, as to which the following statement was made to the Committee:

Expenses

Interest on \$2,500 at 5 per cent.....	\$125 00
Bull service	12 10
Bedding.	80 00
Hauling.	100 45
Labor.	648 00
Equipment costs	3 18
Buildings costs	116 00
Miscellaneous	34 00
Feed cost.	1,431 52
Total.	\$2,550 25

Receipts

Increase in inventory	\$700 00
Milk sales	3,257 34
Cattle sales	454 00
Total.	\$4,411 34
Gain.	\$1,861 09

An examination of these items establishes that very different cost factors were used in the two herds. It is very doubtful if Herd No. 2 made a net loss of \$1,313.96, and it is equally doubtful that Herd No. 3 made a net gain of \$1,861.09. This dairy produced 186,369 pounds of milk, apparently — nearly 8,500 pounds per cow. Nevertheless, it should be borne in mind that these are high-producing bred cows in all probability, and some single registered or pedigreed young stock may have been sold at a price sufficient to make a very large profit. Such experiences are, of course, not infrequent. The following statement is given the Committee as to Herd No. 4 in Tioga county, consisting of 22 cows:

Expenses

Interest on \$2,048 at 5 per cent.....	\$102 40
Bull service	44 00
Bedding.	108 00
Hauling.	401 50
Labor.	709 00
Equipment cost	2 25
Building costs	379 00
Miscellaneous costs	21 00
Feed cost	1,900 00
Total expenses	\$3,667 15

Receipts

Increase inventory	\$375 00
Milk sales, 151,671 pounds of milk.....	2,552 10
Cattle sales	426 00

Total	<u>\$3,353 10</u>
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Loss	<u>\$314 05</u>
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HERD No. 7 — 10 Cows

Expenses

Interest	\$37 90
Bull	34 00
Bedding	49 00
Hauling	72 60
Labor	394 00
Equipment	8 24
Building	140 00
Miscellaneous	18 50
Feed	948 00
Decrease in inventory.....	133 00

Total	<u>\$1,835 24</u>
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Receipts

Milk returns	\$699 36
Cattle sold	176 00

Total receipts	<u>\$875 36</u>
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Net loss	<u>\$959 88</u>
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HERD No. 8 — 10 Cows

Expenses

Interest	\$49 40
Bull	38 50
Bedding	30 00
Hauling	284 70
Labor	485 50
Equipment	13 50
Building	58 75
Miscellaneous	76 00
Feed	655 00

Total expense	<u>\$1,691 35</u>
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Receipts

Increase in inventory.....	\$125 00
Milk sales	893 40
Net cattle sales.....	210 50

Total receipts	<u>\$1,228 90</u>
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Net loss	<u>\$462 45</u>
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THOMAS GAHAGAN, a dairyman of Hawleytown, nine miles from Binghamton, in Broome county, called before the Committee, testified:

I sell my milk to the Cloverdale Dairy Company of Binghamton. I have a dairy of sixteen cows; could not tell the total production or average production of the dairy for 1915. My receipts were as follows:

Increase in inventory value.....	\$196 00
Stock sale	165 00
Milk sale	1,182 82
Milk used in the house.....	25 43
Total	\$1,569 25

Expenses

Feed bought	\$240 85
Stock purchased	55 00
Oats purchased	13 00
Thirty-five tons of hay, at \$12.....	420 00
Six tons of millet, at \$12.....	72 00
Three tons of oats and peas, at \$12.....	36 00
Pasture	93 00
Bedding	18 00
Medicines	2 00
Utensils	3 85
Hauling milk	86 04
Hauling feed, etc.....	91 25
Fences	30 00
Total	\$1,160 99
Balance	408 26

Out of this \$408.26 I have to make the interest on my investment in farm, utensils, dairy and equipment. The farm consists of 150 acres. We have no market crops except the milk. I have a family of nine; all live at this home; the eldest is seventeen. Of course, my children cannot go to a high school. The only school is the district school. If I lived in Binghamton my children would have an opportunity to go to the high school. I do not know how much the farm home is worth to me and my family. I live two miles from the country school and my oldest child has never had an opportunity to go to high school. Besides the interest, the \$408.26 is the only money that we receive to pay for my own dairy labor, the labor of the children and my wife. She helps on the farm. The farm supplies us with poultry products and eggs. I carry all the cows the farm ought to carry. I bought \$240.85 worth of grain. The prices paid me for milk by the Cloverdale Company of Binghamton in 1915, in April, was \$1.50 per hundred; May, \$1.20; June, \$1.10; July, \$1.30; October, \$1.95; November, \$2.05; December, \$2.05; January, \$1.95; February, \$1.80; March, \$1.75. The cost figures I have given were from June 1, 1915, to June 1, 1916."

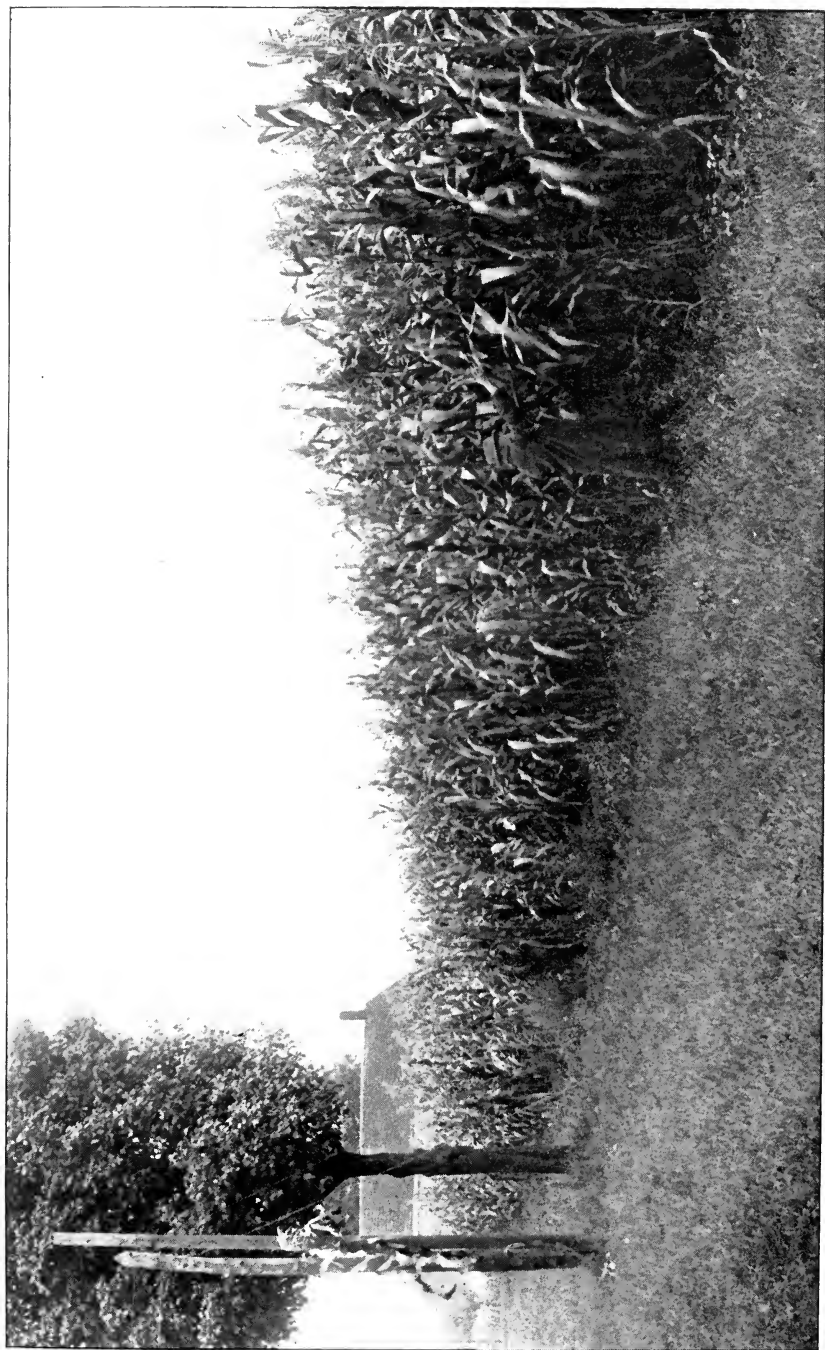
The Committee presents the foregoing evidence herewith as typical of the evidence of a great number of witnesses whose testimony is on the record, but will not be included in this report. If it is assumed that the care of this dairy will require five hours' labor a day during the pasturing season for 165 days, we will have 825 hours; 8 hours a day, winter labor, 1,600 hours; total, 2,425

hours, which, at 15 cents an hour, will amount to \$363.75. This will leave Mr. Gahagan the sum of \$44.51 to pay for the dairy services of the wife and growing children, the interest on his investment, and a great number of miscellaneous items of expense, which are not considered or taken into account in his cost account.

OBSERVATIONS ON THOMAS GAHAGAN'S SITUATION

It appears probable to the Committee that Mr. Gahagan, with his wife and family, may presently abandon the dairy business and become consumers instead of producers in some manufacturing center. It is undoubtedly true that this splendid family of nine will miss many home comforts and health-giving properties that the dairy farm afforded — fresh air, pure water, garden vegetables, poultry and pork — but the last two are only secured by intelligent and attentive labor of the family, which will be higher paid elsewhere perhaps; also the farmhouse home in preference to the city tenement or flat. The cash value of these to Mr. Gahagan's family is difficult to establish with any certainty. On the other hand, by a sober and industrious life in the manufacturing center, the growing family will have the free high school and perchance the university scholarship, shorter hours, lessened labor of the housewife; the village or city amusement and entertainment, and by thrift and united effort, a growing savings bank account. There is little use in considering which of these propositions is the more attractive. The latter proposition has proved the more attractive, as is demonstrated by the exodus from the farms to the manufacturing centers. Undoubtedly, through all the summer months, Thomas Gahagan and every able-bodied member of his family brush "with hasty steps the dew away to meet the sun," and his lantern anticipates the dawn of every winter morning. This is necessary if they would live at all and keep up the farm. Three remedies suggested for Mr. Gahagan's case.

First, better farming. The Committee thinks it probable that all inquiring men will concede that Thomas Gahagan is a good farmer now. It may be that the extension work of the State agricultural agencies can make him a still better one. If so, it is the



A record crop of ensilage in Albany county

plain duty of the State promptly to make every reasonable endeavor in that direction.

Second, better marketing. It is respectfully submitted that up to this time the State has in no substantial way studied the marketing problems that affect the gentleman in question, and, who, of course, the Committee uses only as a type of many thousands of men similarly situated. Without careful study, there can be no intelligent understanding, so that it appears to the Committee that the first duty of the State is to make careful study of the marketing conditions that control the disposition of his product. The study of this subject calls for ability and equipment of the first order. Makeshifts will accomplish nothing.

Third, better farm living. A passable highway to afford access to Thomas Gahagan's residence the State is already endeavoring to supply, almost to the limit of its means, but his children have no school. Can anyone doubt that the State should place in his township and within two miles of his dwelling a suitably equipped school so that these nine children might have an equal advantage in educational facilities with any other nine children in the State? This observation is made not for the purpose of keeping all of the nine children on the Gahagan homestead as they grow to maturity but to keep Mr. Gahagan himself producing during the years of his active life and making farm living agreeable enough to at least keep one or two of their children in producing food-stuffs in this State. Otherwise, for lack of school facilities for their children, the State may lose in the dairy producing field, the valuable services of himself and wife. Economic wastes must be eliminated and a fair price received for his product, thus affording means for better farm living in other directions. It is respectfully submitted that in this latter direction this State, so far, has failed to study the problems involved to the end that they may be intelligently understood or to give any substantial assistance of any kind to the solution of those problems.

The type case above discussed is not peculiar, as is shown by a survey of 152 farms in Broome county. Mr. J. F. Eastman of Binghamton, manager of the Broome County Farm Bureau, called as a witness, testified: That a survey of 152 farms in that county

had been made in connection with the work of the State Agricultural College. The result of that survey is shown in Exhibit No. 28, charging for man labor at 15 cents per hour, and woman or child labor at 10 cents per hour; as shown by these records, the gross cost of keeping a cow was \$105, and the gross returns per cow, \$102, a net loss of \$3 per cow. The net herd cost of milk was \$1.71 per hundredweight; the average selling price was \$1.64 per hundredweight.

EXHIBIT 28

RESULTS OF A COST OF MILK PRODUCTION SURVEY FOR 152 FARMS IN BROOME COUNTY

1. Acres farmed.	154
2. Number of cows per farm.	13.6
3. Number of yearling heifers and heifer calves.	6.7
4. Hundredweight of milk sold.	689
5. Dollars received for milk sold.	\$1,129 00
6. Value of all milk and milk products produced.	1,229 00
7. Pounds of milk sold per cow.	5,055
8. Value per cow.	\$65 00
9. Value of heifers per C. unit.	47 00
10. Value of herd, bulk, per C. unit.	58 00
11. Gross cost of keeping a cow.	105 00
12. Gross returns per cow.	102 00
13. Profit on cows, per cow.	3 00
14. Net herd cost of milk at market per cwt.	1 71
15. Average price received for milk sold per cwt.	1 64
16. Hours of labor spent on cow, per cow.	169

THE COST OF PRODUCING MILK ON 152 FARMS IN BROOME COUNTY, N. Y., FOR YEAR ENDING MAY 1, 1915

Herds included in study were located in various parts of the county, although the larger part were in the vicinity of Windsor, Whitney Point and Binghamton.

Items that Enter Into the Cost of Producing Milk

Statements were obtained from the farm operators in such a way as to determine all the costs incurred by the dairy herd. These items were grain, succulent feed, such as silage, potatoes, mangels, cabbage and sowed corn, dry forage, pasture bedding, human labor, horse labor, the use of buildings, use of equipment, interest on the investment in stock, and in feed and supplies, milk hauling, decreased value and purchases of cattle, and miscellaneous charges such as ice, veterinary bills, and other small items. In determining the net cost of the milk at the market, credit was given for milk and milk products used at home, manure, increased value and sales of cattle. The difference between these credits and the charges was considered to represent the cost of the milk.

Rates at Which the Items were Charged

With the exception of silage which was charged at \$5 per ton, all farm grown feed and bedding was charged at its farm value, as given by the operator. Purchased feed and bedding was charged at the price paid plus

the cost of hauling it home. Interest and taxes at $5\frac{1}{2}\%$ of the value of the pasture land, as given by the operator; plus any additional charges for fences or other work made up the cost of pasture. Man or horse labor in caring for the herd or hauling milk was charged to all herds at 15 cents an hour. All woman or child labor was charged at 10 cents per hour. Interest on the average value of the dairy buildings used for housing the cows and caring for products, repairs and insurance comprised the building charges. The charge for the use of equipment included interest, repairs and new equipment. All interest was figured at 5%. Milk was credited at the average price received for milk sold and manure was credited at \$1.25 per ton at the barn.

WINFIELD S. PECK of North Norwich, called before the Committee and sworn, made the following statement:

EXHIBIT 29

SUMMARY OF BUSINESS FOR PELLETT HOMESTEAD DAIRY FARM FOR YEAR 1915

Tenant's Capital

3 horses.	\$550 00
Tools and equipment.	450 00
	<hr/>
	\$1,000 00

Tenant's Expenses

$\frac{1}{2}$ taxes	\$47 18
$\frac{1}{2}$ grass seed	12 00
$\frac{1}{2}$ oat seed	7 00
$\frac{1}{2}$ feed bill	425 00
1 hired man	300 00
Extra help.	60 00
Horse shoeing.	30 00
$\frac{1}{2}$ milk hauling	97 42
$\frac{1}{2}$ threshing	8 00
Repairs and depreciation on tools.	50 00
Depreciation on horses	50 00
Interest on investment	60 00
	<hr/>
	\$1,146 60
Total receipts.	\$1,455 78
Total expenses.	1,146 60
	<hr/>
Tenants' earnings.	\$309 18

Owner's Capital

Farm, 266 acres	\$8,000 00
33 cows.	2,500 00
1 bull.	100 00
	<hr/>
	\$10,600 00

Owner's Expenses

Interest on \$10,600	\$636 00
$\frac{1}{2}$ milk hauling	97 42
$\frac{1}{2}$ taxes.	47 18
$\frac{1}{2}$ grass seed.	12 00

½ oat seed.	\$7 00
½ feed bill.	425 00
½ threshing.	8 00
Loss and depreciation on cows.	300 00
Depreciation and repairs on buildings.	250 00
Insurance.	17 00
Total expenses.	<u>\$1,799 60</u>
Total receipts.	<u>1,455 78</u>
Loss.	\$343 82
Actual net receipts on investment.	<u>2.8%</u>

This farm is in Chenango county, between Norwich and Sherburne. There is a creamery right on the farm operated by Otto Gruhn of Brooklyn.

GEORGE A. ADAMS of North Norwich, Chenango county, N. Y., made the following cost statement:

On a herd of cows with an average production of 8,666 pounds per cow:

Receipts

Milk.	\$132 00
Manure and calves	17 25
Total receipts.	<u>\$149 25</u>

Expenses

Grain.	\$43 20
Hay and silage	40 00
Labor.	25 00
Bull service.	2 00
Bedding.	3 00
Dairy equipment.	1 00
Use of buildings	6 00
Interest, depreciation, and loss by death.	15 00
Hauling milk.	4 00
Total expenses.	<u>\$139 20</u>
Receipts over expenses per cow.	<u>\$10 00</u>

It is interesting to compare this statment with Dr. Larson's conclusions. They are undoubtedly worked out independently, the one being the actual expense as computed by Mr. Adams from his books and records for the year previous to our investigation, the other being a study of cost data published by various states and agencies prior thereto.

EDWIN P. SMITH, Farm Bureau Agent of Chenango county, called before the Committee and sworn, testified:

I have here a summary of the feed costs of 10 dairies in this county,—6 from New Berlin Cow Testing Association for the year ending May 31, 1913; 6 from the West Chenango Cow Testing Association for the year ending February 29, 1916. These records were obtained in the following manner: The figures are taken from the books of the different Cow Testing Associations. The testers of each association visits the dairy once a month and weighs the milk night and morning for each cow in the dairy and takes samples of it. He weighs the feed also and keeps track of it. He weighs the hay, silage or any rough fodder in the grain and endeavors to keep a fairly accurate account of the amount and cost of the food of the cow. I have compiled these summaries from those records. These farms are above the average as they run through this county. The average milk production of these dairies, per cow, is 5,463. The average for the State is about 4,200. The average production in this county is about 4,500, and the average receipts per cow in this county is \$59. That is, according to the last census, and these receipts are \$82.51, over \$33 above the average receipts for the county, and the average cost for feed here was \$41.33. I understand there was no attempt in the census figures to get actual costs. I make the summary as follows:

EXHIBIT 31

SUMMARY OF PRODUCTION AND FEED COSTS OF TEN HERDS

Six in New Berlin Cow Testing Association, for Year Ending May 31, 1916.
Four in West Chenango Cow Testing Association for Year Ending February 29, 1916.

Herd No.	No. cows	Av. milk production, Pounds	Pounds B. fat	Milk receipts	Cost of feed	Receipts above cost of feed
1	32	5547.	192.3	\$84 97	\$56 93	\$28 04
2	13	6531.7	241.3	98 47	44 48	53 99
3	27	2251.2	117.7	46 53	33 59	12 94
4	18	6413.1	217.7	102 04	52 91	49 13
5	41	6619.9	246.3	97 42	42 60	54 82
6	37	6068.7	236.1	92 43	38 25	54 18
7	34	4843.1	176.6	62 18	32 60	29 58
8	27	5450.1	202.1	78 44	34 25	44 19
9	16	4908.6	180.3	83 08	40 08	43 00
10	10	6454.2	232.9	97 31	54 26	43 05
Ave.	255	5463.2	203.5	\$82.51	\$41.33	\$41 18

I have also a summary showing labor income of 21 dairy farms near Earlville, which I offer.

Received and marked Exhibit 32.

EXHIBIT 32

SUMMARY OF BUSINESS OF TWENTY-ONE DAIRY FARMS NEAR EARLVILLE HAVING TEN OR MORE GRADE COW. PERIOD COVERED, APRIL 1ST, 1913, TO APRIL 1ST, 1914

Farm No.	Capital	No. cows	Milk receipts	Labor income	
5	\$11,725	16	\$1,279	\$254	
7	11,259	26	2,100	279	
8	11,320	15	1,570	350	
9	7,926	20	1,200	900	Another member of family helped; only \$14 for outside labor.
12	12,194	24	2,509	843	
15	9,095	24	1,733	73	
16	9,486	13	1,032	—485	
19	8,563	16	570	360	
20	15,286	22	2,066	76	
22	6,154	10	1,068	716	
27	6,316	12	940	508	Tenant's L. I. only \$315.
28	15,702	22	1,492	352	
32	5,662	14	1,080	348	
35	4,256	11	884	548	
37	9,027	12	780	162	
39	9,186	18	1,335	525	
46	13,013	20	1,953	1,748	Over \$1,000 receipts from other sources than milk.
48	10,246	14	1,300	86	
50	8,885	17	800	—360	
51	6,207	10	1,000	—230	
52	11,143	20	2,230	—35	
21	\$202,651	354	\$28,921	\$6,694	Total
	9,650.05	17	1,376.10	318.75	Average
				81.13	Average receipts per cow

I have also made a computation from these cost accounts, records and practical experience as a basis showing comparative results of dairy herds with an average production per cow of 4,000, 6,000 and 8,000 pounds, per cow, which is marked Exhibit 33.

EXHIBIT 33

COSTS OF MILK PRODUCTION, ESTIMATED, USING COST ACCOUNT RECORDS AND PRACTICAL EXPERIENCE AS BASIS

Annual product, per cow lbs.	Receipts	Grain	Hay and silage, Roughage	Fixed costs *
4,000.	\$60 00	\$15 00	\$23 00	\$30 00
6,000.	90 00	25 00	24 00	35 00
8,000.	120 00	35 00	25 00	40 00
Annual product, per cow lbs.	Int. on cow and hauling costs	Value manure and colf	Net costs	Profit
4,000.	\$7 00	\$14 00	\$61 00	\$-1 00
6,000.	11 00	16 00	79 00	11 00
8,000.	15 00	18 00	97 00	23 00

* Fixed costs — per cow for one year:

Labor, care of cow.....	\$25 00
Bull service.	2 00
Bedding.	3 00
Dairy equipment.	1 00
Use of buildings.....	8 00
Depreciation and loss by death.....	6 00
	<hr/>
	\$45 00
	<hr/>

C. H. Boos, sworn as a witness, testified:

I have cost figures for the previous year on my herd of graded Holstein cows. The average production was 9,000 pounds of milk, per cow, on 40 cows. I fed each cow \$55 worth of grain to get that production. The labor for two men was \$30 a cow. That was figuring a man at \$50 a month and I was one of them until I lost my hand, which I think was a good thing for me, as I saved money by it. I have set down my cost accounts per cow in Exhibit No. 34.

EXHIBIT 34

ESTIMATED MILK EXPENSES OF C. H. BOOS, SHERBURNE, N. Y.

Feed, per cow.....	\$55 00
Labor	30 00
Hay and silage.....	35 00
Bull service	2 00
Loss by death.....	5 00
Interest and depreciation.....	15 00
	<hr/>
	\$142 00
	<hr/>
9,000 pounds milk, at \$1.50 per cwt.....	\$135 00
	<hr/>

I did not estimate the value of manure or calf, but I have nothing charged for the use of barn or anything like that. The labor and food and such things was \$142 a cow. I think the price received for the milk averaged about \$1.46 per hundredweight, sold to the Sanitary Company at Sherburne, N. Y. They say they will pay as much as the others do, or Bordens do. They tested for butter-fat until the past summer, and then we would not stand for it any more; we did not think we were getting a fair test. Mr. Berg, president, came up and we discussed the milk proposition with him. We simply said we could not produce the milk for what we were getting and did not think we were getting a fair deal. We did not think there was anything crooked in the company, but they were testing the milk in the cooler room, and I do not think they gave a fair test during the winter. They said they would remedy that, but we asked them to pay what Bordens did for 3.5 milk. We regarded 3.5 as being a fair average of the butter-fat test and asked them to pay a flat price. We think we had better take 3.5 and not have any test. I think it was better than the average we had gotten at the station during the previous year. Several left the station and went to Otto Gruhn's. The milk is pasteurized and shipped to New York in forty-quart cans. We finally agreed that the Standard people should pay the Borden price for 3.5-B milk for six months. When Bordens increased their price ten cents this summer they raised our price ten cents.

BARNARD AKER of East Cobleskill, N. Y., called and sworn
made the following statement:

In my experience the cost of keeping a dairy cow for one year at present prices is as follows:

Two tons of hay or its equivalent.....	\$30 00
Pasture, together with necessary green food.....	15 00
Eight pounds of grain per day for 200 days, at \$1.70 per hundred-weight	27 20
Two pounds of grain per day for 165 days, at \$1.70 per hundred-weight	5 60
Necessary labor for taking care of one cow for one year.....	21 30
Deterioration in value of cow worth \$60, 5 per cent.....	3 00
Use of stable and tools.....	1 50
Interest on investment, 5 per cent. on \$60 cow.....	3 00
Total	\$106 60

There are other expenses, such as loss by death, veterinary expenses, insurance, washing dairy utensils, ice, and so forth, which easily makes the cost \$115 per year per cow. At present prices paid for milk, the product of the average herd amounts to less than \$100 per cow. The dairyman is suffering a loss of \$15 per cow per year, while his expenses for living and for labor are increasing. The price of milk must be increased 25 per cent. to put the compensation of the farmer in line with that of other labor.

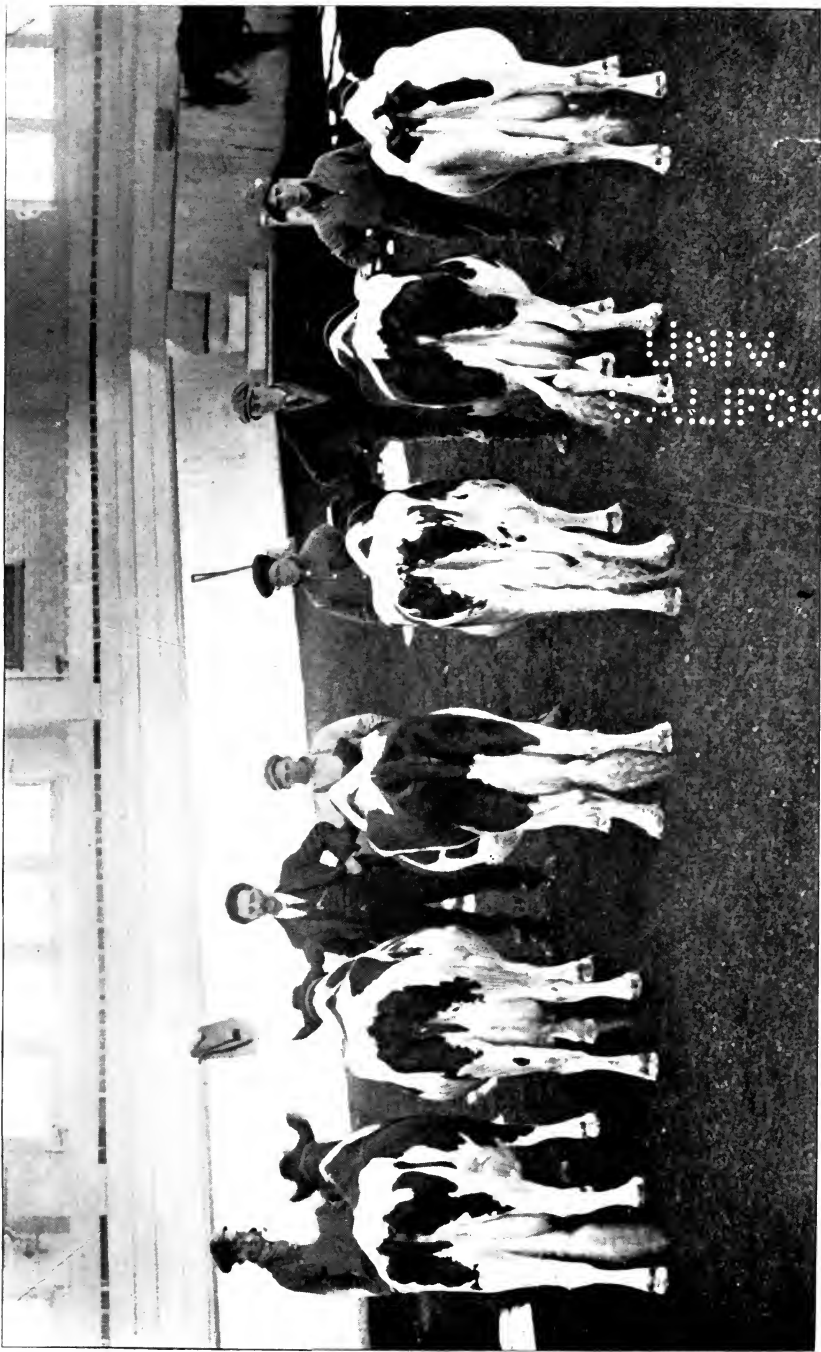
The following statement of the general farm account from April 3, 1914, to April 3, 1915, is testified to by H. L. Elliott, Winthrop, N. Y., which is of particular interest as showing the value of skim milk products retained on the farm and turned into hogs and calves:

EXHIBIT NO. 95

INCOME AND EXPENSES ON FARM OF H. C. ELLIOTT, WINTHROP, 210 ACRES

April 3, 1914, to April 3, 1915

Income for butter-fat, 31 cows (total gross).....	\$1,711 32	
Poultry and egg sales.....	210 00	
Hogs and calves.....	850 00	
Hay sales, 5 tons, at \$15.....	75 00	
Two cows sold, \$60 each.....	120 00	
		\$2,966 32
<i>Expense Account</i>		
Purchased feed, total.....	\$550 00	
Labor, one man, \$33, 8 months.....	264 00	
Labor, one man, yearly, \$16.....	192 00	
Cash board, two men, equal one man 20 months, at \$10	200 00	
Labor, son, three months, at \$30.....	90 00	
Shoeing and harness repairs.....	55 00	
Depreciation on machinery, 10 per cent. on \$850...	85 00	
Repairs on buildings (annual average).....	130 00	
Insurance per year.....	15 00	
Interest on stock and farm, \$10,500, at 5 per cent.	525 00	
Fencing renewal, \$85 per year.....	85 00	



Six prize winners from a Cornell herd. Each animal has made better than 30 pounds of SC per ceat butter in seven days and two of them have given more than 18,000 pounds of milk in a year. The notable fact is that these animals were bred and developed from a very ordinary foundation stock, using only means that are within the reach of the ordinary dairymen

١٢٣٤٥٦٧٨٩١٠١١١٢١٣١٤١٥١٦١٧١٨١٩٢٠٢١٢٢٢٣٢٤٢٥٢٦٢٧٢٨٢٩٣٠٣١٣٢٣٣٣٤٣٥٣٦٣٧٣٨٣٩٤٠٤١٤٢٤٣٤٤٤٥٤٦٤٧٤٨٤٩٥٠٥١٥٢٥٣٥٤٥٥٥٦٥٧٥٨٥٩٦٠٦١٦٢٦٣٦٤٦٥٦٦٦٧٦٨٦٩٧٠٧١٧٢٧٣٧٤٧٥٧٦٧٧٧٨٧٩٨٠٨١٨٢٨٣٨٤٨٥٨٦٨٧٨٨٨٩٩٠٩١٩٢٩٣٩٤٩٥٩٦٩٧٩٨٩٩١٠١١١٢١٣١٤١٥١٦١٧١٨١٩٢٠٢١٢٢٢٣٢٤٢٥٢٦٢٧٢٨٢٩٣٠٣١٣٢٣٣٣٤٣٥٣٦٣٧٣٨٣٩٤٠٤١٤٢٤٣٤٤٤٥٤٦٤٧٤٨٤٩٥٠٥١٥٢٥٣٥٤٥٥٥٦٥٧٥٨٥٩٦٠٦١٦٢٦٣٦٤٦٥٦٦٦٧٦٨٦٩٧٠٧١٧٢٧٣٧٤٧٥٧٦٧٧٧٨٧٩٨٠٨١٨٢٨٣٨٤٨٥٨٦٨٧٨٨٨٩٩٠٩١٩٢٩٣٩٤٩٥٩٦٩٧٩٨٩٩

Small tools, pails, oil and gasoline.....	\$35 00	
Depreciation on horses, \$900, at 10 per cent.....	90 00	
		<u>\$2,316 00</u>
Labor income of owner.....		<u>\$650 32</u>

No value made of manure because feed charged to herd at low valuation and little income was received from cash crops.

CHARLES S. PHELPS, Farm Bureau Manager for St. Lawrence county, called before the Committee, testified:

I have computed a summary report on 142 farm records taken in the town of Gouverneur in 1913, which is marked Exhibit 100.

EXHIBIT NO. 100

SOME IMPORTANT FACTORS FOR SUCCESS IN DAIRY FARMING

Summary Report on 142 Farm Records Taken in Town of Gouverneur, 1913

TABLE I.—Average on 142 Dairy Farms

Average milk receipts.....	\$1,759 00	
Average other receipts.....	684 00	
		<u>\$2,443 00</u>
Average total receipts.....		
Average cash expenses.....	\$838 00	
Unpaid labor and board of help.....	242 00	
		<u>1,080 00</u>
Average total expenses.....		
Receipts less expenses.....		\$1,363 00
Five per cent. interest on total farm capital of \$13,175 deducted.		659 00
		<u>\$704 00</u>
Labor income of farmer.....		

Relation of Cow Receipts to Labor Income

Dividing these farms into seven groups, according to the value of the milk sold per cow, shows a marked effect on the labor income.

The value of the milk sold per cow was found by dividing the dollars received for milk or butter by the average number of cows on hand at the beginning and end of the year.

TABLE II.—Effect of Cow Receipts on Labor Income

Milk sold per cow.	Labor income.	Number of farms in each group.	Farms making labor income over \$1,000.
Below \$50	\$253	8	1
\$50 to 59	400	14	0
60 to 69	514	24	2
70 to 79	619	33	5
80 to 89	755	32	8
90 to 99	1,019	20	9
Over 100	1,366	11	6
		<u>142</u>	<u>31</u>

Increasing the milk receipts per cow \$10 resulted in increasing the labor income between \$100 and \$300. Out of 142 farms only 31 made a labor income of better than \$1,000; this is one farm out of five. Of the 22 farms in the two groups having the poorest grade of cows only one made \$1,000. With poor cows there is practically no chance for a large success. Of the 31 farms in the two groups having the best grade of cows 15 made labor incomes of over \$1,000; thus with good cows half the farms made a large labor income.

TABLE III.—Effect of Total Capital (size) on Labor Incomes

Total	Capital	Average capital	Avg. No. acres	Avg No. cows	Labor Income	No. farms	
						No. L. I. over farms	\$1,000
Under	\$5,000	\$4,058	62	9	\$479	6	0
\$5,000	8,000	6,804	114	13	444	18	1
8,001	11,000	9,582	122	18	573	30	4
11,001	14,000	12,624	167	22	613	36	5
14,001	20,000	16,341	202	27	807	33	11
Over	20,000	23,305	272	39	1,221	19	10
Average.		<u>\$13,175</u>	<u>169</u>	<u>23</u>	<u>704</u>		

Farms with the smallest capital averaged 62 acres and 9 cows. The acres and the cows increased regularly in each group until the farms with over \$20,000 capital have 272 acres and 39 cows. The labor incomes also increased with the size of the business. None of the farms in the group with the smallest capital made as much as \$1,000 and in the next group only one farm out of 18 made this amount. The chances for success are better with a large business, that is, more land and more cows. Of the 19 farms having over \$20,000 capital, and an average of 39 cows, 10 farms, or over 50%, made over \$1,000.

TABLE IV.—Number of Sources of Income. Effect of Specialized Milk Production on Labor Income

Per cent. of total receipts derived from milk			No. of Average farms, labor income	
100	80%	milk sales	44	\$554
79	70%	milk sales	40	751
69	60%	milk sales	37	774
Less than 60% milk sales			21	806

Milk is the important income in this region. Some farmers depend on raising and selling stock. This amounts to considerable on a few registered stock farms. Pigs and pork are a source of income on most cheese factory farms. Hay is sold on a few farms. A number of farms derive good income from poultry and especially from turkeys. The 44 farms that made the largest part of their income from milk production made less than those which had other sources of income. The largest labor incomes are generally made on farms that combine other branches of farming with milk production.

	Number of cows in dairy	Returns per cow, 1913
Farm No. 4	23	\$76 00
Farm No. 13	15	98 00
Farm No. 14	23	109 00
Farm No. 16	16	90 00
Farm No. 26	14	67 00
Farm No. 29	15	57 00
Farm No. 33	18	89 00
Farm No. 34	25	90 00
Farm No. 35	31	95 00
Farm No. 48	20	59 00
Farm No. 49	8	68 00
Farm No. 51	26	100 00
Farm No. 52	15	68 00
Farm No. 53	25	108 00
Farm No. 56	18	83 00
Farm No. 58	25	88 00
Farm No. 60	25	82 00
Farm No. 61	26	70 00
Farm No. 71	11	70 00
Farm No. 76	20	75 00
Farm No. 79	12	50 00
Farm No. 80	20	90 00
Farm No. 84	32	60 00
Farm No. 85	17	103 00
Farm No. 87	32	90 00
Farm No. 98	37	81 00
	<u>==</u>	<u>==</u>

F. A. HOUGH of Massena, N. Y., testified to the Committee:

I have kept records on my farm from 1906 to 1915, of the number of cows, the production per cow, per annum, the pounds of milk sold, and the price received. Statement received and marked Exhibit 105.

EXHIBIT NO. 105

Year	No. Cows	Lbs. per cow	Pounds Milk sold	Average Price	Received for Milk
1906.	35	5,116	179,073	1.06	\$1,657 66
1907.	35	4,676	163,671	1.07	1,762 02
1908.	30	4,994	149,961	1.15	1,521 38
1909.	30	4,454	136,583	1.17	1,602 60
1910.	30	5,029	150,892	1.26	1,915 02
1911.	29	4,971	144,146	1.12	1,716 82
1912.	30	5,818	174,548	1.34	2,336 86
1913.	29	4,898	142,048	1.36	1,938 20
1914.	32	4,460	142,724	1.26	1,797 18
1915.	30	5,397	161,918	1.45	2,134 00
		<u>==</u>	<u>==</u>	<u>==</u>	<u>==</u>

H. B. LIVERMORE of Sangerfield, Oneida county, testified that with the average production per cow of over 10,000 pounds, the cost of producing 100 pounds of milk in the year preceding

this inquiry, with that production, was \$1,734, and makes the following statement, which is marked Exhibit 111:

EXHIBIT NO. 111

COST OF MILK PRODUCTION — 10 Cows

Charges:

Bedding.	\$11 80
Hauling milk	8 25
Man labor 2,869 man hours at .1451.	416 34
Horse labor 516 hours at .2185.	112 74
Use of equipment, 151 hours at .076.	11 48
New equipment.	4 75
Use of buildings	30 00
Interest on stock.	130 38
Miscellaneous.	2 00
Roughage.	788 71
Concentrates.	475 65

Total.	<u>\$1,992 10</u>
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Credits:

10 calves at \$2.	\$20 00
Manure — 92 tons at \$1.50.	138 00
Milk — 105,779 lbs. at \$1.65.	1,749 10
	<u>\$1,907 10</u>

Charges minus credit for manure and calves.	\$1,834 10
Cost to produce 100 lbs. milk.	\$1.734
Roughage.	39.6%
Concentrates.	23.9%
Labor.	20.9%
Returns per hour man labor. . . . .	.115
Average production per cow	10,578 lbs.

M. C. JONES of Stittville, Oneida county, N. Y., testified to the cost of milk production in the year ending 1916, and made the following statement, which is marked Exhibit No. 112:

EXHIBIT NO. 112

COST OF MILK PRODUCTION, 1916

Charges:

First inventory.	\$2,145 00
Cattle bought.	170 00
Interest.	104 12
Milk hauling.	228 75
Labor.	887 00
Equipment.	11 41
Buildings.	108 90
Miscellaneous.	44 40
Roughage.	1,162 40
Concentrates.	525 89

	<u>\$5,387 87</u>
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Credits:

Second inventory.	\$2,020 00
Cattle sold.	421 25
Manure.	225 00
Milk (used in house) 1,460 lbs.	23 65
Milk (cheese factory) 830 lbs.	9 13
Milk (condensary) 122,581 lbs.	1,870 78
	<hr/>
	\$4,569 79
	<hr/>
Loss.	\$818 08
	<hr/>
Returns per man hour worked, per hour. . . . .	.022
Cost to produce 100 lbs. milk	2.18
Sale price of milk per cwt.	1.524
	<hr/>

FRED DECK, a dairyman of the town of Marcy, Oneida county, made the following cost estimate of milk production in a dairy of 17 cows which he sold at \$1.66 per hundred-weight:

EXHIBIT NO. 113**COST OF MILK PRODUCTION — 17 COWS****Charges:**

Hauling.	\$144 00
Man labor, 2,958 hours.	632 00
Horse labor 416 hours.	72 80
Equipment.	68 65
Buildings.	177 40
Miscellaneous.	65 75
Roughage.	971 00
Concentrates.	372 26
Interest on stock.	75 50
	<hr/>
	\$2,579 36
	<hr/>
	2,495 03
	<hr/>
Loss.	\$84 33
	<hr/>

Credits:

Live stock sales and net increase.	\$212 00
Manure.	210 00
Milk, 123,844 lbs. at \$1.65.	2,073 03
	<hr/>
	\$2,495 03
	<hr/>
Cost to produce 100 lbs.	1.742
Returns per hour man labor. . . . .	.18½
Average production per cow.	7,284 lbs.
	<hr/>

F. O. Ross, Farm Bureau Agent of Oneida county, gave the following testimony:

"The record of 157 herds in this county containing 2,363 cows that completed full yearly records have been collected and summarized by groups according to their production.

Summarizing all herds that average not more than 6,000 pounds of milk per cow, it is found that there were 42 such herds having a total of 751 cows whose average production was 5,133.8 pounds of milk, or 500 pounds more per cow than the last Federal census gave as the production for Oneida county cows. These records were secured in the regular way by the dairy demonstrator visiting each herd once a month, making an accurate weight of the milk produced in 24 hours, the butter fat is determined and the production of the month computed. He also weighs the feed of each cow and keeps a record of the food costs. In these records the hay is given a uniform value of \$15 per ton, with silage $\frac{1}{3}$ the value of hay. The grain is charged at cost.

The records of these 751 cows show that the average production per cow was 5,133.8 pounds of milk, testing 3.761 per cent of butter fat, or a total of 193.1 pounds of butter fat per cow. The average price received was \$1.534 per hundred pounds, or \$78.76. Each cow is further credited with \$18 for manure and offspring, making a total credit of \$96.76. The average cost of roughage was \$39.29, with grain cost at \$14.56, a total feed cost of \$53.86 per cow. The food cost of \$53.86 taken from the milk receipt of \$78.76 gives a balance of \$24.89 above the feed cost.

Costs other than feed and labor were averaged at \$29.41, which was secured by averaging hundreds of official survey and cost account reports. Subtracting the credit of \$18 from this, leaves a balance of \$11.41, which, if taken from the balance over feed of \$24.89 leaves \$13.48 to pay for the labor required to milk and care for the cow one year, or will pay nine and six-tenths cents per hour for the labor. If the dairyman figured his time in at twenty cents per hour, the average cow giving 5,133 pounds of milk in these associations would fail by \$14.52 to pay him.

The dairymen in the cow test associations are not average men, but the best dairymen, who want to know what their cows are do-

ing and to discard the poorer ones as shown by their records. We not only have the better class of dairymen in the association, but we have only their best cows tabulated, because we only have those that were allowed to complete their full year. Any cow that failed in production, or went wrong from any of the many causes they are subject to, does not appear; therefore, we are showing these in their best light, and their records clearly show that the average cow cannot be expected to pay market price for the food and labor required.

In the entire 157 herds which were far better than the average are considered, we find the 2,363 cows averaged 6,709 pounds of milk, containing 236.6 pounds of butter fat. The average price received was \$1.53 per hundred pounds, valued at \$102.71 per cow. Roughage cost \$42.61, grain \$22.79, making a total food cost of \$65.40. Using the same charges as above, we find the owner would receive 18½ cents per hour, or would lack \$2.10 per cow in receiving pay at the rate of 20 cents per hour.

THEODORE F. SAYBOLD, called before the Committee, testified:

"My postoffice address is Durhamville, Madison county. I am a dairyman. At this time, August, 1916, I am getting \$1.65 per hundred pounds of milk from the Levy Dairy Company. Barn is scored. I am now selling to a Mr. Whaley, who I understand buys the milk for the Borden's and get the Borden prices. It is only hearsay that it goes to Borden's, except the cans are tagged from Borden's. I went to Levy's up to June 13, 1914. In June I got \$1.15 for an 85 pound can and about \$1.35 per hundred pounds. I think I got a better price than the average Borden patron at that time. This is in the 32 cent zone. Whaley is going to pay \$1.37 in July, I suppose. That is the Borden price for 3.7 milk, scoring 68. The Borden's buy through Whaley. During the year ending July 1, 1916, I received from my cows \$1,775.23. My total farm expenses were \$1,026.25. This left a balance of \$748.98. Interest on my investment amounts to \$526.50. This left a balance of \$222.48. This last balance represents the wages that my family and myself have been able to earn so far as the farm is concerned. I have made no charge for depre-

ciation in value of cows, as we have been fortunate in not losing any during the year and have raised calves to replace or make good in case of loss by accident or depreciation, due to age. Therefore, I have not credited the farm with the calves so raised. The production of my dairy averages 7,792 pounds, five being heifers with first calf, three of these cows are pure-bred Holsteins which might be valued from \$200 to \$600, although in figuring my investment I have valued them on the basis of grades. My farm consists of 95 acres. My investment is as follows:

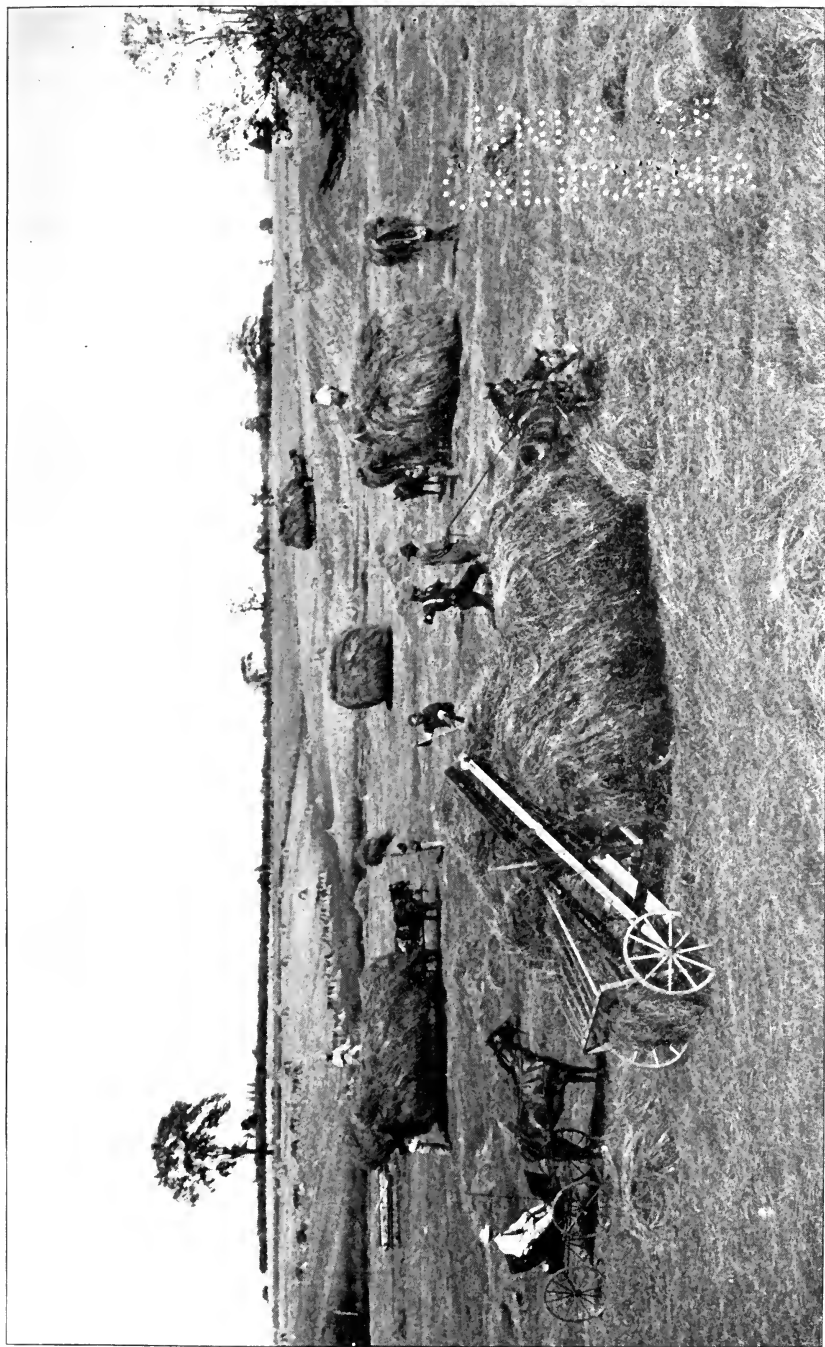
Farms.	\$6,500 00
3 horses.	500 00
15 cows at \$75.	1,125 00
Tools and equipment	650 00
Total investment.	<u>\$8,775 00</u>

"I see I have figured my interest wrong. At 6 per cent it would be \$526.50. I sold from the dairy 116,879 pounds of milk at an average price of \$1.521½ per hundred pounds, for which I received \$1,775.23, this being practically all that was sold off the farm during this year. My expenses were as follows:

Farm seeds.	\$57 00
Grain purchased	231 25
Hired labor.	326 00
Hired pasture.	35 00
Repairs on tools and incidentals.	132 00
Filing the silo	10 00
Threshing.	9 00
Fertilizer and lime	89 00
Taxes.	39 00
Insurance.	21 00
Veterinary and medicines	11 00
Repairs on buildings	67 00
	<u>\$1,026 25</u>

G. W. CLINCH, of Westmoreland, Oneida County, called before the Committee, testified:

"I have a record of all my farm expenses for the year 1915. The labor is mostly done by my own family. I have my farm expenses all in. We do not use tobacco or intoxicating drinks and hardly ever go away from home. We do work hard. This account is accurate and true. We produced 108,590 pounds of milk on an



A busy hay field in New York State. The 1915 hay crop in this State had a value of \$93,000,000

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107 acre farm from 17 cows, which is an average of 6,387 pounds of milk per cow. My receipts were as follows:

Cows sold.	\$223 00
Calves sold.	48 50
Service of bull	2 80
108,590 pounds of milk at \$1.49 per cwt.	1,603 71
Total receipts.	\$1,878 01

Expenses

Cows bought.	\$353 00
Feed purchased.	323 37
Sundries purchased.	30 00
Hay and ensilage	714 00
Pasture.	112 00
Labor.	365 00
	\$1,897 37

“Our family consisted of father, mother, grandmother and two children, aged nine and four years. Hired a boy seven months. Receipts from the entire farm were as follows:

Cows.	\$1,878 01
Hens.	107 61
Hay.	280 51
Miscellaneous.	157 98
Total.	\$2,424 11

Our expenses were as follows:

Church.	\$99 42
Clothing.	50 75
Groceries.	290 55
Household.	184 26
Doctor.	34 20
Taxes.	74 95
Interest and insurance	147 41
Repairs and seeds, etc.	287 60
Horses.	158 72
Hens.	27 76
Cows.	706 37
Labor.	168 90
Principal paid.	100 00
Cash on hand over last year.	93 22
Total.	\$2,424 11

“You will notice that the principal was paid, \$100, and cash on hand over last year was ninety odd dollars, so that we have for our labor, above expenses, one hundred and ninety odd dollars.”

Mr. J. R. TEALL, Farm Bureau Agent of Cayuga county, testified:

"I have been the Farm Bureau Agent of Cayuga county since April 1, 1914. In 1915, we took surveys of 50 farms located throughout the county in all parts of the county. I have classified 24 of these farms that have five or more cows that were purely shippers of milk. In other words, none of these farms made up their butter on the farm; they either shipped their milk or took it to the creamery. I have their investment, the average production per cow, the price per hundred pounds, and records of the receipts per cow, and the value of feed per cow. I have not gotten the labor costs. The average number of cows on the 24 farms was 11.2; their average value was \$88; the average number of pounds of milk per cow was 5,619. The average price received per hundred pounds of milk was \$1.47. That was the average price paid for the milk. The average receipts per cow were \$82.99. The value of feed per cow, per year, was \$69.45. Interest on the average investment at 6 per cent was \$5.25. That left a margin of \$8.26 to pay the labor, the use of pasture, the use of bulls, equipment and depreciation. The minus signs in Exhibit 154 indicate a loss; that is, the figures show that the returns were not sufficient by such amount to pay for the value of feed per cow and interest on the investment."

EXHIBIT NO. 154

No. of farms	No. of cows	Avg. value	Pounds of milk per cow	Price per cwt.
c-5-1.	10.	75	4044	1.64
3-c-3.	16.5	150	6830	1.41
8-c-2.	5.5	60	3360	1.26
5-c-9.	45.	75	6920	1.88
3-c-2.	9.5	200	5710	1.29
x-5	5.5	77	4580	1.25
8-c-1.	7.	75	5430	1.50
d-f-2.	7.	100	5657	1.64
5-d-3.	7.	75	7060	1.41
d-5-1.	9.	65	5400	1.56
2-c-2.	7.	93	4900	1.38
5-c-10.	13.5	55	4520	1.64
5-6-6.	21.5	100	5048	1.64
5-d-13.	10.	40	2840	1.41
1-d-2.	7.5	50	7770	1.40
6-c-1.	30.	78	7220	1.36
4-d-2.	15.	85	6300	1.36
5-c-7.	11.	75	5700	1.50

9-a-1.	16.5	156	6300	1.60
7-c-1.	11.	65	4930	1.47
3-c-1.	11.	200	6760	1.46
5-c-4.	17.	75	5623	1.88
5-d-16.	12.	40	5300	1.18
4-e-1.	5.5	65	5707	1.32
	<u>281.</u>	<u>2129</u>	<u>134869</u>	<u>35.44</u>
Ave.	11.2	88	5619	1.477
	<u><u>11.2</u></u>	<u><u>88</u></u>	<u><u>5619</u></u>	<u><u>1.477</u></u>

	Receipts per cow	Value feed per cow	Interest on investment at 6%	Profit above labor-pasture, use of bldg. and equipment
c-5-1.	67	75	4.50	-12.50
3-c-3.	96	81	9.00	6.00
8-c-2.	43	62	3.60	-22.60
5-c-9.	130	84	4.50	41.50
3-c-2.	74	65	12.00	-3.00
x-5.	57	53	4.62	- .62
8-c-1.	86	106	4.50	-24.50
d-f-2.	93	78	6.00	9.00
5-d-3.	99	79	4.50	15.50
d-5-1.	83	60	3.90	19.10
2-c-2.	67	66	5.58	-4.58
5-c-10.	74	51	3.30	9.70
5-6-6.	83	78	6.00	-1.00
	<u><u>40</u></u>	<u><u>36</u></u>	<u><u>2.40</u></u>	<u><u>1.60</u></u>
5-d-13.	40	36	2.40	1.60
1-d-2.	111	77	3.50	30.50
6-e-1.	98	56	4.68	37.32
4-d-2.	86	65	5.10	15.90
5-e-7.	84.50	63	4.50	17.00
9-a-1.	100.80	80	9.36	10.64
7-c-1.	72.47	69	3.90	- .43
3-c-1.	98.59	64	10.00	24.59
5-c-4.	105.71	58	4.70	33.01
5-d-16.	62.54	72	2.40	-11.86
4-e-1.	75.33	88	3.90	-15.56
	<u><u>1192.94</u></u>	<u><u>1666</u></u>	<u><u>5.28</u></u>	<u><u>8.26</u></u>
	<u><u>82.99</u></u>	<u><u>69.45</u></u>	<u><u>5.28</u></u>	<u><u>8.26</u></u>

"I have here three complete records of three farms. The first farm has nine cows; the total feed cost for that herd was \$662; labor cost \$252; interest on investment \$61.20. We considered that there was no depreciation, because of the fact that he had some young stock which he said were worth more at the end of the year, so there was no depreciation. As a building charge, \$101, that includes interest on his investment and waste of the building. Equipment cost, \$9.30; bull service for the herd, \$25.25; bedding cost, \$128; miscellaneous cost, which includes the veterinary,

medicines, insurance on stock and feed grinding, etc., \$26. Total cost; \$1,254.75. This man sold 41,894 pounds of milk at an average of \$1.64 for 100 pounds, \$687.06. Value of manure, \$135; calves sold, \$93. Total receipts from the herd, \$915.06. He lost \$339.69. The average production per cow was 4,600 pounds. There was also a hauling charge of \$93.60 which was not included in there.

Here is another farm of five cows:

<i>Expenses</i>	
Feed	\$324 00
Labor.	140 85
Interest charge	16 20
Depreciation.	27 00
Building rent.	56 35
Equipment rent	1 00
Bull service.	5 00
Bedding.	60 00
Miscellaneous cost	3 50
	<hr/>
	\$633 30
	<hr/>

<i>Receipts</i>	
Milk sold, 27,950 pounds at \$1.64 per hundred pounds.	\$468 54
Manure.	75 00
Veal calves.	42 25
	<hr/>
Total receipts.	\$586 39
	<hr/>

Average number of pounds milk per cow, 5,592 pounds. Cost to produce per 100 pounds, \$1.84. Loss, \$47.51.

Mr. Ward.—There is another item that they say ought to be added in; that is, in addition to the labor return the farmer got the home; that has a cash value. For instance, if he worked hard in Auburn for \$20 a week, a large part of his money is going for fuel, house rent, etc. A dairyman gets that as a by-product.

Mr. Teall.—That item, of course, should be given a consideration. We give that item a consideration when we figure the labor in the whole farm.

Mr. Ward.—The dairy ought to get a part of it.

Mr. Teall.—The dairy ought to get a part of it. I don't know how you can tell how much the dairy should be given credit for.

Mr. Ward.— We are trying to get some men's ideas on that. They tell us that the United States Department of Agriculture has averaged a large number of farm homes in the different States, ten different States, and they have reached the conclusion that the average farm home has a cash value of about \$400 per year to the farmer. What do you think about that — house rent, fuel, and these things I speak of? You can gather the eggs, etc., with little labor.

Mr. Teall.— It is a big item, there is no question about that.

Mr. Ward.— Is \$400 a year about right? Some of the witnesses say that is twice too much.

Mr. Teall.— I did not appreciate that part until I had to pay rent myself, and I come to realize that it is quite an item. I think it is within \$400.

A Voice.— You get all those eggs and garden stuff if you work for them, but not unless you do.

Mr. Ward.— Some men have good wives who take care of the poultry and the garden and are not expected apparently to get paid for their work.

A Voice.— She has to have food and clothing though, anyway.

Mr. Teall.— I have here another herd of eight cows with an average production of 7,000 pounds. It costs him to produce milk \$2.05 per hundred pounds. He sold it for \$1.64 per hundred pounds. The reason this man lost money on his herd was because he used land that was worth \$125 an acre for pasture. That land was in the town of Sennett. The land was more useful and valuable for other purposes than for pasture. He has an expensive barn that he is housing these cattle in, more expensive than is necessary. At present prices, the man is bound to lose money, however, on a herd that produces less than 6,000 pounds per cow."

GEORGE A. SMITH of the New York State Experiment Farm at Geneva, called before the Committee, testified:

"I have charge of the dairy work at the State Experiment Station. We have a herd of 26 dairy cows, pure-bred, registered cattle. We have only a small field that we can use for the cows to

run in and exercise, and the cows are fed from food cut on the land and stored; soiling only. The produce is sold to the men who work on the farm in the form of milk and butter and the men pay 4 cents a quart for the milk and carry it themselves. The butter is sold to the employees for twenty cents a pound the year round, the little we have. We do not have very much butter; it is mostly sold in the milk. Only the surplus is made into butter. We keep the yield of the cow that went through the full year and the cost of production for each individual cow. I do not think our cost of production here exceeds the food cost of the ordinary dairy farm in the State. The cows are fed with silage; they eat silage the year round practically, some green food. They average about 7,000 pounds of 5.8 milk; about 470 pounds of butter-fat. That would make about 470 pounds of butter. It costs us about \$1 per hundred pounds to produce that milk for food alone. That is figured on the basis of \$3 a ton for silage and \$10 a ton for hay, and the grain at what we paid for it. The hay is figured at \$10 a ton in the barn. This is as much as hay will average to the farmer, as a rule. If you take the average cost of his pressing and delivering, he does not get net out of hay much more than \$10. Last year perhaps he did, but not the average year, at the barn. The average hay will not bring \$15 per ton at the barn year by year for a period of years. The depreciation and interest on a cow over the period of the last eight years, taking a cow that is worth \$100, would be, as we compute it, \$13 per year, per cow; interest, insurance and repairs combined, about \$15 per cow. Bull service, \$5.40 per annum, per cow; bedding \$5 per cow; coal, water, cleaning out utensils at the barn, \$1.84 per cow; ice and water for cooling the milk \$3.86 per cow; distributing the milk, \$4.90 per cow. That means the man that takes care of the milk and distributes the milk, his wages cost \$4.90 per cow, per year. It would not be quite so much as the hauling charge. Washing out utensils, \$6.17 per cow; depreciation on utensils, \$1 per cow; tests and veterinary service, \$2.50 per cow, making the expenses, outside of food and labor, \$57.67. The milk here at the station, our own labor cost and everything on the production of 3,000 quarts per cow, cost \$0.0496 per quart. Labor in our case would not be applicable to most cases, because it costs more. We

credited the cows \$35 each for the manure and calf. Our overhead and food cost was \$86 per cow practically, per year. I haven't put the labor item in. The labor item was \$60 per cow, but that is not typical of the average dairy farm. The \$86 cost of food and overhead expense would fairly compare with the average well-conducted farm. From checking up the matter with a good many farmers, I estimate the labor cost per cow to be \$27.40. This would make the cost of carrying the average dairy cow for a year \$113.46. As I figure this year, I made their food cost the same as ours last year, \$61.30; their labor, \$27.20; their other expenses, \$30, and credit manure and calf, \$18. That makes milk cost on the basis of 4 cents a quart. That is the correct approximation of the cost of producing milk here in 1915. We get our food practically at carload rates through the dealer. We cannot tell whether the dealers give all the farmers the same privilege or not. We paid \$29 for distiller's grain here a short time ago, I think the latter part of June. I understood that to be the price of distiller's grains in carload lots. I got the quotations from the wholesalers and we paid him 25 cents a ton for his part of the job and we took it from the car.

Mr. Ward.— We find that the average dairyman is paying \$5 and \$6 a ton for his feed over the wholesale cost.

Mr. Smith.— Not if he pays cash.

Mr. Ward.— Yes, we find him paying cash and paying that in many cases to-day and yesterday and all last year. I don't see how you have escaped the attention of the Feed Dealers' Association on the ground that you were illegitimate in your dealings.

Mr. Jordan.— We inspect the goods sent out by the dealers; maybe that is the way we escaped.

Mr. Smith.— We negotiate the arrangement with the local dealer by which he furnishes this grain. The arrangement is that we pay him 25 cents a ton over the price that he pays by the carload. We buy wheat bran and our last price was \$22.50 a ton. We do not buy any mixed dairy foods; we can do our mixing cheaper than paying the mill man to mix it. We mix a ration as follows: 300 pounds of bran; 200 pounds of dry distiller's grain;

150 pounds of gluten; 150 pounds of cottonseed meal, and 150 pounds of corn meal. That mixture cost us last month \$1.50 per hundred pounds, practically \$30 a ton. Most mixed dairy foods cost \$35 and \$36 a ton, wholesale. Exhibit 156 shows the food cost and milk production of this herd on the units, taking the prices I have given."

EXHIBIT No. 156

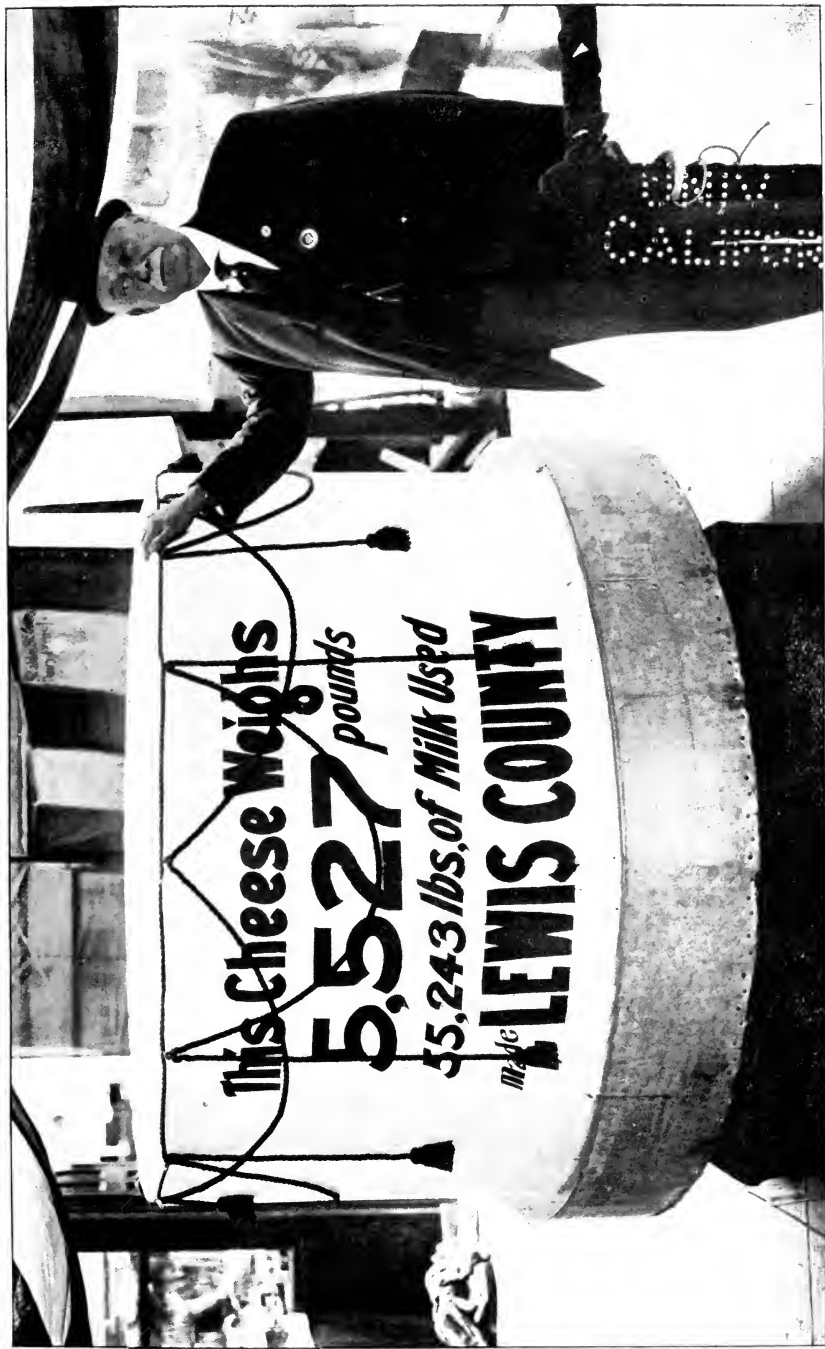
25 cows, 1915	Milk lbs.	Fat per cent.	Butter fat, lbs.	Food cost
Dotshome Carey	6,639	5.1	339	\$63 15
Carey Blue Belle.....	7,542	6.16	464.2	60 07
Carey S. Blue Belle	8,361	6.37	533.2	62 95
Carey S. Fancy	8,481.5	6.03	511.4	65 34
Carey Fairy Queen	7,795	6.28	490	58 57
Carey S. B. B. Princess	6,162	5.97	367.9	67 52
Oxford Carey F. B. B.	6,521	5.73	373	57 88
Oxford B. B. Carey, 2 yrs. old....	6,393	6.07	388	65 50
Carey F. B. B. Princess.....	5,312	6.75	358	63 88
Oxford Carey B. B.	5,332	5.70	320	65 75
Oxford Carey Lady Belle, 2 yrs. old.	5,731	6.08	348	63 74
Oxford Carey F. B. B.	5,664	5.82	329	59 07
Dotshome Carey B. B., 3 yrs. old..	3,805	6.33	241	60 05
Gold Fern Carey F. Queen, 2 yrs. old	4,509	6.19	279	59 99
Millie Fancy	8,668	5.23	453.2	65 81
Millie of Geneva	5,746	5.39	309	63 91
Millie D. of S. B. B.	6,884	6.29	433	66 60
Millie E. of S. B. B. No. 2.....	8,110	5.79	470	67 77
Millie G. B. B.	6,521	6.66	434.6	65 10
Millie F. B. B.	8,035	5.93	476	67 58
Millie F. B. B. Lady.....	6,624	5.74	380	61 39
Oxford Millie D. B. B.	6,313	6.07	383	68 24
Hammond F. No. 1.....	11,534	5.21	601	63 41
Hammond F. No. 2.....	8,183	5.43	444	58 81
Gertie F. No. 1, B. B.	7,922	6.44	510	62 78
Average.	6,919	5.86	409	\$63 39

AN EXAMPLE OF CERTIFIED MILK COSTS

The Committee was fortunate in getting an accurate and complete cost account for the period from April 1, 1914, to March 31, 1915, kept by the Markam and Puffer farm of 400 acres at Avon, N. Y.

Mr. G. R. OLGIVIE, called as a witness, testified:

"I am secretary for the Markham and Puffer farm in the certified milk business at Avon in the town of West Rush, Monroe county. We have a mixed herd of 75 cows, Holsteins, Guernseys and grades. We produce certified milk under the supervision of



Lewis county shows what it can do in cheese making. The cheese, made by Horace A. Rees, was exhibited at the State Fair in 1912

to the
the
the

the Milk Commission. We must have first a tuberculin test of the cows; clean stables and barns, as well as over head. We must bottle the milk in the barn in sterilized bottles and ship it in the original bottles packed in ice. The cows must be curried, brushed and washed twice daily and the udder washed just before milking with a sterilized cloth. We use an individual cloth for each cow. The milker must wear a clean white suit and wash his hands before milking each cow. The milk must be cooled promptly to not less than 45 degrees and bottled immediately. That is the usual requirement for certified milk. The cows are not pastured. I have the cost figures of our herd here for the period from April 1, 1914, to March 31, 1915, marked Exhibit No. 159.

EXHIBIT No. 159

CONDENSED STATEMENT, APRIL 1, 1914 — MARCH 31, 1915

Revenue

Milk sold	\$15,333 02	197,071 qts.	.08c.
Milk sold	1,032 40	17,206 qts.	.063c.
Calves sold	187 00		
Increase in value of herd.....	1,355 00		
Manure.	1,000 00		
	<u>\$18,907 42</u>		

Expense

Labor, cow barn	\$3,011 41
Labor, bot. R.	1,252 58
B. R. exp.	2,195 88
Milk comm.	435 01
Cow expense	15,785 10
Caps and rings	342 70
Laundry.	103 47
Breakage.	10 22
Repairs.	360 62
Freight.	1,422 69
Incidentals.	155 65
Ice.	316 71
	<u>\$25,392 04</u>

Actual loss per year	\$6,484 62
Deducting all overhead	3,357 96
Shows loss	<u>\$3,126 66</u>

Analysis of Cow Expense

Grain.	\$3,592 08
Hay.	2,834 83
Ensilage.	1,960 00
Roots.	327 50
Loss on cattle sold	1,259 11
T. B.	369 21

Bedding.	\$474 75
Veterinarian.	103 50
Drugs.	244 76
Tools.	86 89
A. R. D.	83 97
Rent.	800 00
Depreciation.	1,605 40
Light.	87 34
Interest.	518 10
Office.	398 00
Manager.	784 34
Water.	109 76
Pasture.	121 81
Miscellaneous.	23 65
	<hr/>
	\$15,785 10

Milk produced, 214,277 quarts; 556 quarts per day.

Average price received, .0925; price to January 20, 1915, 8c.; then 10c.

Average cost with O. H., .1243.

Average cost without O. H., .1098.

Feed Prices

Mixed hay	\$14 00
Alfalfa.	18 00
Ensilage.	4 00
Roots, bushel	25
Schumacher.	29 00
Bran.	26 00
Ajax.	32 50
Uniform.	31 25
Gluten.	30 70
Oil meal	34 50
Hominy.	34 50
G. oats	36 35

Cows purchased 24; cost, \$3,995.

Mr. Olgivie.—The average cost per cow was \$160. That is, the labor cost and food, but it does not include the bottling of the milk, just the labor of taking care of the cow, milking and feeding her and the provision she had. We carry \$800 barn rent for 64 cows. It runs about \$12 per cow. I have not just separated that. The expense of keeping that dairy from April, 1914, to March, 1915, was \$25,392.04; that is including depreciation charge and interest charge and rent. Labor in the cow barn was \$3,011.41; in the bottling room, \$1,262.58. The bottling room expense was \$2,195.88. The Milk Commission charge is \$435.01. That is what we had to pay the Milk Commission of the Monroe County Medical Association, which, in return for that they certified the milk, made an examination of the milk three times a week. The item cows, \$15,785.10, includes keeping the cows, their depreciation, interest, food, etc. The item, roots, \$327.50, was for man-

gels; means root feed. The item "T. B.," \$369.21, is loss from reacting cows on the tuberculin test. The item, \$103.50, is veterinary service; the item, \$244.10, is drugs and disinfectants. The item, "A. R. D.," \$83.99, is advanced registry work. The item, \$800, is barn and silage rental valuation. The item of depreciation, \$1,605.40, is figured at 20 per cent on the book value of the herd. Our place is an expensive one. We buy all our cattle foods by the carload despite the Retail Feed Dealers' Association."

CURTIS F. GIFFORD, of Wilson, Niagara county, called before the Committee, testified:

"I had seven cows in 1915 and eight in 1914. I figure on shipping two cans of milk a day. I raised 184 bushels of wheat on 12 acres this year. I had 16 acres last year and raised about 350 bushels. I think I sold it last year for \$7 a bushel in the fall. Most of the farmers in my vicinity have a field of wheat. Sometimes on real good land we will get as high as 40 bushels per acre; the average would not be more than 25 or 30. We use fertilizer for the wheat, about 200 pounds per acre; cost about \$24 a ton. It is winter wheat. Beans are one of our staple crops. I pay a man \$35 a month for eight months; \$25 a month for four months, furnishing for him a house to live in, 20 bushels of potatoes and either keep a cow for him or give him a quart of milk and a garden spot; a horse to use when it is necessary. Day wages are \$1.50 per day and board. This man boards himself. The dairy consists of two full bloods, three grades and two heifers, Holsteins. I have figures for the year ending September 27, 1916, from September to September. I sell this milk for 17 cents a gallon. I sold 5,840 gallons. I received from the herd \$1,248. That was from the milk and the calves I raised and the milk we used in the house. I credit the dairy with \$130 increase; \$75 for the manure. That gave me \$1,248 on the credit side. Expenses: Grain bought, \$240; 67 tons of silage at \$6 a ton, \$402; hay, \$120; miscellaneous, \$8; pasture, \$140. Pasture is worth that here. Labor, 1 man, 3 hours a day, at 15 cents an hour, \$164; hauling, \$91; insurance, repairs, depreciation and interest, \$100; interest on stock and food, \$46; veterinary, \$5; dairy supplies and ice, \$22; freight on milk, \$91. We ship the milk in eight-gallon cans

to Niagara Falls on the R. W. & O. Thirty tickets cost us \$3.78; one ticket will carry each eight-gallon can. The bull service cost \$15. The total herd cost was \$1,497, and the total herd returns were \$1,248, and that only included 3 hours per day at 15 cents an hour for taking care of them. The milk cost me 21 cents a gallon on these figures, and I sold it for 17."

F. S. MARKHAM, of Port Leyden, N. Y., testified as follows:

"I have kept the cost of production on my farm with 20 cows for the past year. I have set it down in Exhibit 189.

EXHIBIT NO. 189

PRODUCTION COSTS — 20 Cows

Dr.

Feed (hay and grain) (15T-grain).....	\$1,000
Labor (35 T. hay).....	805
Interest on money invested on cows.....	100
Depreciation of cows (losses).....	200
Insurance on cows and barn.....	25
Taxes on cows and barn.....	....
Bedding.....	100
Keep of bull.....	50
Barn rent.....	250
Light, medicine, veterinarian and ice.....	50
Heating water in winter.....	10
	<hr/>
	\$2,590

Cr.

Milk produced.....	\$2,440
Value of manure.....	100
Value of calves.....	250
	<hr/>
	\$2,790

Raised eleven heifer and bull calves; sold and estimated at \$250.

All the cost of labor is not included in this memoranda of estimated costs which is very close to the actual production costs but I have purposely kept out the salary of the man I hire by the year to take my place so far as the physical labor part, counting the work I do as nothing. So that the above would be the same as if I were working on the farm and getting my wage out of the net profits.

Results

Gross income, one year.....	\$2,790
Gross expenses, one year.....	2,590
Profit.	<u>\$200</u>
Salary of man, one year.....	\$520
Expenses, one year	2,590
Actual expense, one year.....	\$3,310
Gross receipts, one year.....	2,790
Loss.	<u><u>\$520</u></u>

The silage has not been figured at what it is worth, just the cost of labor to grow and cut it into the silo, so that it would be worth at least \$3 a ton over and above the cost of placing it in silo.

The twenty cows were fed about 80 tons, at \$3 per ton would make an additional cost in the production of milk of \$240.

Result

The other expenses.....	\$2,590
Silage.	240
	<u>\$2,830</u>
Gross receipts	2,790
Loss.	<u><u>\$40</u></u>

Number of pounds of milk produced, 162,457.

Average per cow, 8,122.8 pounds.

Average price paid at station per hundred pounds, \$1.522.

Average cost to produce, per hundred pounds, \$1.74.

The average cost of milk production in Montgomery county is attempted to be shown in Exhibit 197, offered in evidence before the Committee.

EXHIBIT NO. 197**AVERAGE COST MILK PRODUCTION PER COW ON 26 DAIRIES IN MONTGOMERY COUNTY**

Pounds milk sold.....	5,896
Average price per 100 pounds.....	<u>\$1 46</u>

Receipts

For milk sold.....	\$86 84
Value other milk.....	3 19
Value calf and manure.....	14 85
	<u><u>\$102 87</u></u>

Costs

Bull service	\$2 12
Bedding.	1 62
Labor on milking.....	28 83
Dairy equipment	1 09
Buildings.	9 01

Miscellaneous.	\$2 99
Hauling milk	11 15
Interest on cow investment.	3 44
Feed costs	64 38

\$124 63

Loss per cow, 464 cows.	\$21 76
Cost to produce 100 pounds milk.	2 00

ALLEN S. MERCHANT, Farm Bureau Manager, of Montgomery county, who furnished the above computation, testified:

The cost to produce milk on the 26 farms was as follows:

Herd No. 1.	\$1 37 per hundred pounds
Herd No. 2.	2 15
Herd No. 3.	1 73
Herd No. 4.	2 48
Herd No. 5.	1 47
Herd No. 6.	2 43
Herd No. 7.	2 48
Herd No. 8.	1 29
Herd No. 9.	2 18
Herd No. 10.	2 26
Herd No. 11.	2 81
Herd No. 12.	1 67
Herd No. 13.	1 94
Herd No. 14.	1 69
Herd No. 15.	2 41
Herd No. 16.	1 55
Herd No. 17.	1 46
Herd No. 18.	3 58
Herd No. 19.	2 34
Herd No. 20.	2 04
Herd No. 21.	2 80
Herd No. 22.	1 97
Herd No. 23.	2 05
Herd No. 24.	1 34
Herd No. 25.	1 38
Herd No. 26.	2 16

Only herds Nos. 8, 17, 23, 24 and 25 showed a profit.

No. 8 had total dairy costs of \$1,448.40 and credited the manure and calves at \$225. The herd consisted of fifteen cows and gave the following items of cost:

Feed cost	\$795 00
Interest.	60 00
Hauling.	109 50
Miscellaneous.	20 00
Buildings.	145 00
Equipment.	12 60
Labor.	254 80
Bedding.	18 00
Bull service	33 50

Herd No. 24, with seventeen cows, sold the milk for \$1.54 per hundred-weight. Produced 149,053 pounds, as against 95,025 pounds produced by Herd No. 8, which was sold for \$1.39 per hundredweight. Herd No. 24 had the following items of expense:

Bull service	\$34 75
Bedding.	32 00
Labor.	509 60
Dairy equipment	12 00
Building.	148 00
Miscellaneous.	6 00
Hauling.	327 17
Interest on cow investment.....	70 00
Feed cost	1,109 00
Total cost	\$2,248 52
Credit for manure and calves.....	252 00
Net cost	\$1,996 52
Cost to produce milk.....	\$1 34
Profit.	381 05

Herd No. 1 had twenty cows. The total amount of milk produced was 137,627 pounds, which averaged \$1.46 per hundredweight. The milk receipts were \$1,815.90. Other credits brought the total value of milk to \$1,849.10. Expenses were as follows:

Bull service	\$35 00
Bedding.	30 00
Labor.	655 20
Dairy equipment	18 55
Buildings.	157 50
Miscellaneous.	50 00
Hauling milk	273 50
Interest on cow investment.....	75 00
Feed costs	928 00
Total cost	\$2,222 75
Credit manure and calf.....	340 00
Net cost	\$1,882 75
Cost 100 pounds of milk.....	\$1 37
Net loss	37 65

Dairy No. 5, of 35 cows, had the following statement:

Total amount of milk, 220,873 pounds; average sale price, \$1.50. Total receipts for milk, \$3,234.10.

Expenses

Bull service	\$73 00
Bedding.	80 00
Labor.	764 40
Dairy equipment	16 00
Buildings.	424 00
Miscellaneous.	69 00
Hauling milk	216 00
Interest on cow investment.....	140 00
Feed cost	2,062 00
Total costs	\$3,844 40
Credit manure and calves.....	595 00
Net cost	\$3,249 40
Cost to produce milk.....	\$1 47
Net loss	15 30

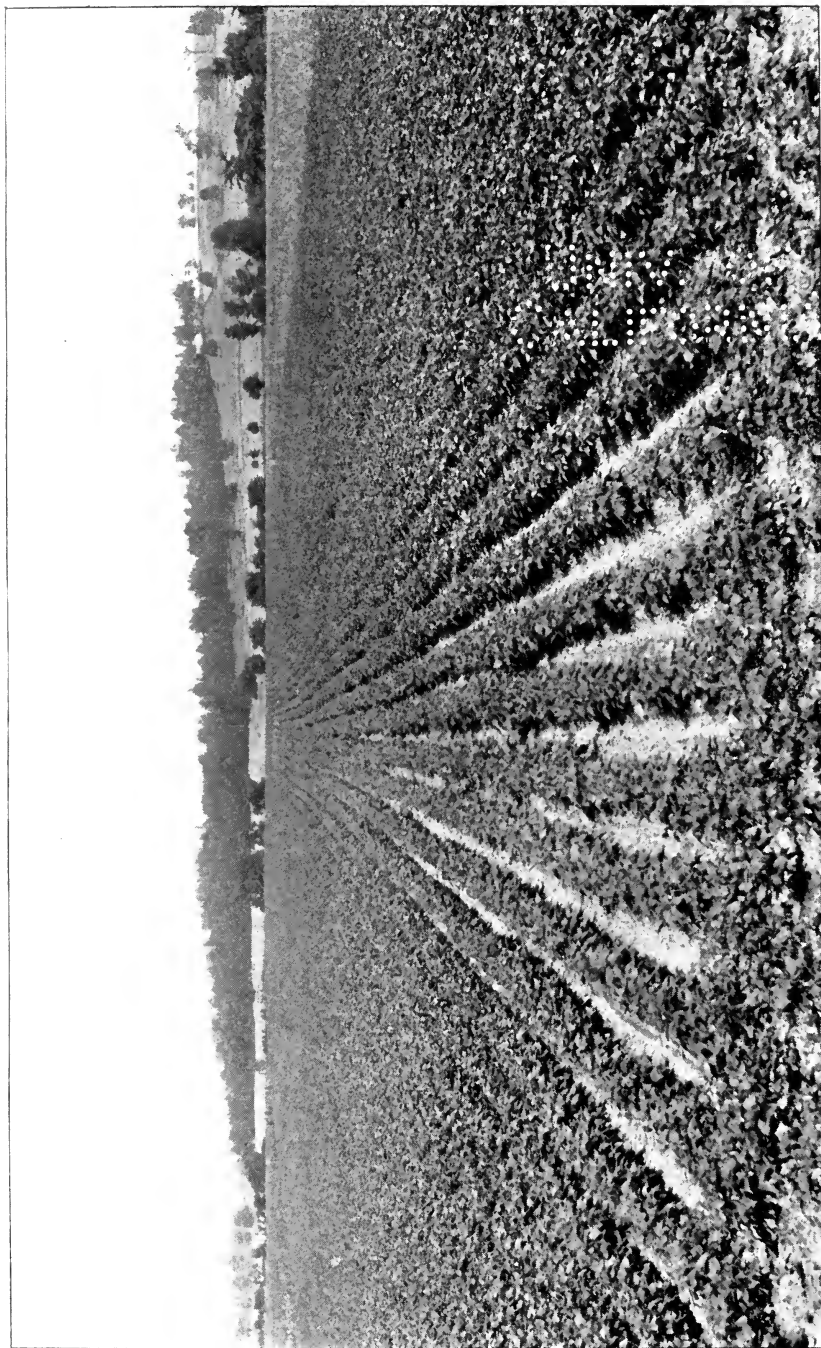
Dairy No. 15, of 30 cows, produced 156,629 pounds of milk, which sold for an average price of \$1.64 per hundred pounds. Total value of the milk was \$2,433.58. Expenses are as follows:

Bull service	\$38 00
Bedding.	25 00
Labor of milking.....	655 20
Dairy equipment	65 75
Building rent	222 00
Miscellaneous.	72 00
Hauling milk	456 25
Interest on cow investment.....	90 00
Feed cost	2,569 00
<hr/>	
Total cost	\$4,193 20
Value of manure and calves.....	415 00
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Net cost	\$3,778 20
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Cost to produce per hundred weight.....	\$2 41
Net loss	1,354 67
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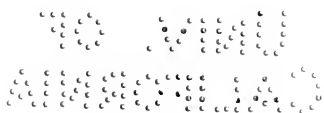
When the difference in the quantity of milk produced in dairies Nos. 5 and 15 are compared, the difference in results will not be so alarming. The amount of production in these records is generally accurate. A comparison of dairy production is sometimes interesting. For instance, in this survey, dairy No. 1, of 20 cows, sold 137,627 pounds of milk at \$1.46 per hundredweight; dairy No. 13, of 20 cows, sold 95,301 pounds of milk at an average price of \$1.35 per hundredweight; dairy No. 17, of 20 cows, sold 130,652 pounds of milk at an average price of \$1.66 per hundredweight; dairy No. 21, of 20 cows, sold 108,796 pounds of milk at an average price of \$1.71 per hundredweight.

The profitableness of the dairy business, according to this Montgomery County survey, as compared with other forms of agricultural income, is shown by Exhibit 196, computed by Mr. Merchant:

Twelve farms where the per cent. of milk receipts were 50 per cent. or less of the total farm receipts. The per cent. of receipts from crops averaged $23\frac{1}{2}$ per cent. of total farm receipts.



Beans do well in certain parts of New York State. The above field is near Ayon. Beans are now selling at \$8 a bushel or better



Farm No.	Per cent. receipts from crops	Per cent. receipts from milk	Labor income
1-8.....	29	34	\$847
1-0.....	12	43	1,841
5-6.....	46	33	892
2-24.....	48	35	1,561
2-23.....	43	40	739
4-2.....	15	50	656
2-7.....	16	48	2,012
3-1.....	0	44	1,017
3-7.....	37	48	3,511
2-15.....	19	49	1,135
2-0.....	14	27	1,377
6-15.....	2	48	734
Total.....	281	499	\$16,922
Average.....	23½%	41½%	\$1,402

Farm No.	Per cent. receipts from crops	Per cent. receipts from milk	Labor income
2-9.....	8	68	\$23
6-19.....	0	67	-91
2-29.....	1	85	257
1-6.....	1	82	-312
2-22.....	1	77	48
2-16.....	14	73	-317
2-8.....	12	81	414
5-1.....	0	99	-485
6-16.....	0	76	393
6-11.....	9	64	22
6-12.....	0	86	118
6-7.....	0	80	162
Total.....	46	938	\$232
Average.....	4%	78%	\$19 33

Mr. Merchant produces and offers in evidence Exhibit No. 198, a statement of the methods used in obtaining the foregoing figures.

EXHIBIT NO. 198

METHODS USED IN DETERMINING THE COST OF MILK PRODUCTION

Total Milk Receipts

Total Amount of Milk, Average price, and milk receipts:

These figures were obtained either from the farmer's record account book or from milk slips he received from his milk station, or from the books at the milk station where he delivered his milk. Hence, these figures are correct.

Value of Other Milk:

These figures were determined from the farmer's estimate which included the amount of milk for household use which was figured at four cents a quart, and the amount of milk fed to calves raised on the farm or sold as veals. The value of the latter milk was figured at market prices.

*Cost of Milk Production***Bull Service:**

A uniform charge of \$36 was made for the keeping of a bull one year. Interest on the value of the bull was figured at five per cent. A credit of \$5 was allowed for the value of the manure. From these figures the cost of keeping a bull for one year were determined.

Bedding:

On most farms, oat straw was used for bedding. The value of the straw or whatever material was used, was estimated by the farmer at what it was worth in the barn. In most cases, oat straw was valued at \$4 per ton.

Labor on Milking:

The farmer gave the number of hours required daily to get his cows from the field, put them in the stable, do the milking, turn the cows out again, during six months of summer. The farmer also estimated the number of hours required daily to milk the cows during the six months of winter. Estimate was also given on the amount of time required to feed the cows, water them, clean the stables, clean the cows and any other stable work pertaining to the care of the cows during the winter six months. The value of this time was figured at twenty cents per hour to determine the cost of labor on milking and care of the cows.

Dairy Equipment:

This item includes the interest on the investment in cans, pails, strainer, cooler, milk wagon, etc., at five per cent. and depreciation and repairs on the above mentioned tools. This cost item is usually small on account of the small investment.

Buildings:

Interest on the present value of the barn used for the housing of cows, the feed and forage necessary to keep the cows, was figured at five per cent. Average depreciation and insurance were added to the interest account, making the total cost of buildings.

Miscellaneous:

This item included insurance on stock, medicine, veterinary fees, fly protectors, stock foods, ice, feed, grinding, etc.

Hauling Milk:

The time required by a farmer to haul the milk to the milk station was figured at twenty cents per hour for the man and fifteen cents per hour for each horse used. No charge was made for the wagon, as this was figured in under dairy equipment.

Interest on Cow Investment:

Interest at five per cent. was figured on the farmer's estimate of what his cows would sell for if put up at public auction.

Feed Costs:

This item included the cost of purchased foods, which was usually obtained very accurately. It also includes the value of farm grown grain and forage fed to the cows. The estimates given by the farmer at what the hay would sell for in the barn and silage was in all cases figured at \$4 per ton.

The sum of the above cost items give the total costs.

Value of Manure and Calf:

The farmer gave the value of calves at three days old. Manure was valued at \$10 per year for each cow. The value of calf and manure, deducted from the total costs, give the net cost.

Profit and Loss:

There were 26 Milk Survey Records taken. The records of four farms showed a profit and 22 farms showed a loss. The average loss per farm was \$411.72, which was determined by dividing the difference between the profit on the four farms from the loss on the 22 farms by the 26 dairies.

EUGENE ARTHUR, called before the Committee, testified:

"I live in the village of Lowville. I am in the grain and coal business. I have made a balance sheet of the Aratage farm for the year July 1, 1915, to July 1, 1916. We have 270 acres in the main farm and 100 acres in the pasture lot. Forty cows were milked during the period. The farm is absolutely devoted to dairying. These cows average over 7,600 pounds of milk apiece. They are thoroughbred Holsteins. It cost us to produce 100 pounds of milk on that farm \$2.15 per hundredweight. We sold the milk for \$1.47 per hundredweight. The 40 cows produced 305,286 pounds of milk, for which we received \$4,505.29. We bought grain and feed during the year, \$3,031.37, but we sold \$810.77 worth of oats, leaving the net cost of the grain and feed \$2,220.60. We also fed to pigs and calves \$260 worth of grain, leaving the amount of grain foods chargeable to milk production \$1,960.60, making net receipts from milk \$2,544.69. The balance sheet for the farm is as follows:

Income

Milk receipts	\$4,505 29
Hay and straw	257 50
Pork.	100 07
Nineteen calves, \$15.....	285 00
Grain sales	810 77
Total.	<u>\$5,958 63</u>

Expense

Interest on \$17,500 at six per cent.....	\$1,050 00
Depreciation, buildings, equipment, annual.....	200 00
Depreciation on herd, grade basis, ten per cent.....	300 00
Depreciation and interest, machinery, horses and equipment, ten per cent.	300 00
Grain purchased	3,031 37
Lime and fertilizer.....	58 20
Seeds.	90 37
Ice.	16 00

Threshing.	34 80
Filling silo	35 45
Taxes.	203 61
Veterinary.	55 00
Insurance, annual	43 00
Labor, three men and two women:	
First man	780 00
Second man	600 00
Third man	540 00
Two women, services.....	547 54
Extra labor, haying, harvesting, cow testing.....	75 00
Total expense	<u>\$7,960 30</u>
Net loss of operation.....	<u>\$2,001 61</u>

FAILURE TO USE UNIFORM FACTORS IN ASCERTAINING LABOR COST BY COW TESTING ASSOCIATIONS

C. A. BOUTELLE, called before the Committee, testified that he was an accountant employed in connection with the extension work of the New York State College of Agriculture, etc. He had made a computation and schedule. He had compiled a schedule of the records of four cow testing associations in Wyoming county, viz.: Warsaw Association, Attica Association, Perry Pike and Gainesville Association, and the Java Association. Those records show labor costs as follows:

Warsaw Association

Herd No. 1 — 20 cows.....	\$462 60
Herd No. 2 — 9 cows.....	332 40
Herd No. 3 — 14 cows.....	410 70
Herd No. 4 — 8 cows.....	220 35
Herd No. 5 — 10 cows.....	318 60
Herd No. 6 — 6 cows.....	273 90
Herd No. 7 — 17 cows.....	784 30
Herd No. 8 — 9 cows.....	<u>191 55</u>

Attica Association

Herd No. 1 — 15 cows.....	\$209 55
Herd No. 2 — 15 cows.....	291 60
Herd No. 3 — 20 cows.....	291 75
Herd No. 4 — 16 cows.....	264 15
Herd No. 5 — 15 cows.....	218 70
Herd No. 6 — 8 cows.....	246 00
Herd No. 7 — 9 cows.....	209 55
Herd No. 8 — 13 cows.....	291 90
Herd No. 9 — 20 cows.....	313 80
Herd No. 10 — 17 cows.....	<u>328 20</u>

Perry Pike and Gainesville Association

Herd No.	1—21	cows.....	\$437 40
Herd No.	2—29	cows.....	465 45
Herd No.	3—14	cows.....	291 60
Herd No.	4—16	cows.....	319 20
Herd No.	5—27	cows.....	465 00
Herd No.	6—11	cows.....	225 85
Herd No.	7—12	cows.....	223 25
Herd No.	8—32	cows.....	897 96
Herd No.	9—18	cows.....	448 88
Herd No.	10—18	cows.....	259 95

Java Association

Herd No.	1—21	cows.....	\$519 45
Herd No.	2—14	cows.....	223 50
Herd No.	3—14	cows.....	223 50
Herd No.	4—15	cows.....	246 30
Herd No.	5—16	cows.....	232 80
Herd No.	6—14	cows.....	264 60
Herd No.	7—14	cows.....	264 60
Herd No.	8—7	cows.....	182 25
Herd No.	9—18	cows.....	492 30
Herd No.	10—18	cows.....	492 30

To bring about in the same community such wide variation in labor cost would be extremely difficult. It would seem to be a fair conclusion that the actual cost per cow unit in the dairies in question would be very nearly uniform, provided that the costs were thoroughly analyzed and uniform factors used in each dairy. Similar variations appear in the cow testing association results as to total cost of feed in the four associations mentioned, which are given as follows:

Warsaw Association

Herd No.	1—20	cows.....	\$1,293 00
Herd No.	2—9	cows.....	410 66
Herd No.	3—14	cows.....	704 77
Herd No.	4—8	cows.....	334 00
Herd No.	5—10	cows.....	469 61
Herd No.	6—6	cows.....	256 87
Herd No.	7—17	cows.....	859 53
Herd No.	8—9	cows.....	349 01

Attica Association

Herd No.	1—15	cows.....	\$764 98
Herd No.	2—15	cows.....	681 82
Herd No.	3—20	cows.....	761 25
Herd No.	4—16	cows.....	770 39
Herd No.	5—15	cows.....	980 33
Herd No.	6—8	cows.....	489 33
Herd No.	7—9	cows.....	534 78
Herd No.	8—13	cows.....	784 94
Herd No.	9—20	cows.....	1,007 31
Herd No.	10—17	cows.....	1,090 58

These variations cannot be accounted for by the milk production, as the same schedule (Exhibit 189) shows the following milk productions:

Warsaw Association

Herd No. 1 — 20 cows.....	138,544 lbs. of milk
---------------------------	----------------------

Attica Association

Herd No. 9 — 20 cows.....	131,883 lbs. of milk
Herd No. 10 — 17 cows.....	116,532 lbs. of milk

Perry Pike and Gainesville Association

	Value of product as sold
Herd No. 1 — 21 cows.....	\$1,664 96
Herd No. 2 — 29 cows.....	1,294 43

NOTE.—In this case, however, the 21 cows in Herd No. 1 produced 165,445 lbs. of milk, while the 29 cows in Herd No. 2 produced only 125,380 lbs. of milk.

Herd No. 3 — 14 cows.....	\$584 96
Herd No. 4 — 16 cows.....	745 29
Herd No. 5 — 27 cows.....	1,179 00

NOTE.—This herd produced 126,064 lbs. of milk.

Herd No. 6 — 11 cows.....	\$467 82
Herd No. 7 — 12 cows.....	461 64
Herd No. 8 — 32 cows.....	1,374 98
Herd No. 9 — 18 cows.....	799 98
Herd No. 10 — 18 cows.....	1,008 78

NOTE.—In this Association, Herd No. 10 produced 15,000 lbs. of milk more than Herd No. 9, which at the sale price netted \$186.00, whereas the excess cost in feed was \$208.60; but the figures further show that Herd No. 9 produced milk at a cost of \$1.17 per hundred pounds, while it cost Herd No. 10 \$1.31 per hundred pounds.

Java Association

Herd No. 1 — 21 cows.....	\$1,090 00
Herd No. 2 — 14 cows.....	603 70
Herd No. 3 — 14 cows.....	691 71
Herd No. 4 — 15 cows.....	596 59
Herd No. 5 — 16 cows.....	463 01
Herd No. 6 — 14 cows.....	443 34
Herd No. 7 — 14 cows.....	558 75
Herd No. 8 — 7 cows.....	365 14
Herd No. 9 — 18 cows.....	811 42
Herd No. 10 — 18 cows.....	900 00

The cost of producing butter fat or 100 pounds of milk as shown by the records of these associations are as follows:

Warsaw Association

	Cost of 1 lb. of butter fat	Cost of 100 lbs. of milk
Herd No. 1 .....	.412	\$1 48
Herd No. 2 .....	.310	1 44
Herd No. 3 .....	.260	1 41
Herd No. 4 .....	.313	1 75
Herd No. 5 .....	.286	1 50
Herd No. 6 .....	.613	3 03
Herd No. 7 .....	.560	2 68
Herd No. 8 .....	.330	1 81

Attica Association

Herd No. 1 .....	.270	.997
Herd No. 2 .....	.397	1 46
Herd No. 3 .....	.300	1 23
Herd No. 4 .....	.330	1 31
Herd No. 5 .....	.320	1 17
Herd No. 6 .....	.350	1 35
Herd No. 7 .....	.397	1 78
Herd No. 8 .....	.491	1 83
Herd No. 9 .....	.240	1 01
Herd No. 10 .....	.370	1 47

Perry Pike and Gainesville Association

Herd No. 1 .....	.386	\$1 37
Herd No. 2 .....	.416	1 40
Herd No. 3 .....	.390	1 71
Herd No. 4 .....	.299	1 15
Herd No. 5 .....	.334	1 26
Herd No. 6 .....	.439	1 72
Herd No. 7 .....	.372	1 51
Herd No. 8 .....	.303	1 14
Herd No. 9 .....	.230	1 17
Herd No. 10 .....	.310	1 31

Java Association

Herd No. 1 .....	.240	\$1 19
Herd No. 2 .....	.370	1 34
Herd No. 3 .....	.310	1 15
Herd No. 4 .....	.330	1 13
Herd No. 5 .....	.370	1 32
Herd No. 6 .....	.330	1 19
Herd No. 7 .....	.260	1 24
Herd No. 8 .....	.310	1 50
Herd No. 9 .....	.300	1 33
Herd No. 10 .....	.320	1 48

From these varying cost computations Mr. Boutelle makes up the following average schedule:

<i>Expense per Average Cow Unit</i>	
Services.	\$1 51
Bedding.	3 51
Labor.	21 75
Use of dairy equipment.	1 30
Building rentals	6 27
Hauling milk	5 11
Miscellaneous.	3 54
Feed.	48 55
Interest.	3 39
Total expenses	<u>\$94 93</u>

These cows had an average production of 5,503 pounds of milk each, but averages based on such widely varying units of cost, especially such permanent costs as labor in the same community, and at the same period, do not furnish the accurate knowledge upon actual cost of production that is desired. The depreciation in the dairy cow seems not to have been considered in the Wyoming account, although full credit is given for the manure and calf. Adopting Doctor Larson's item at approximately \$6.00 per cow for depreciation in insurance and taxes, would bring the annual cost of one of these cows to over \$100.00.

CHAUTAUQUA COUNTY COW TESTING ASSOCIATION AVERAGES

Testimony before the Committee as to the value of the product of 238 cows of the Carroll Cow Testing Association in Chautauqua county during the period from April 1, 1915, to April 1, 1916, shows the following averages:

Number of cows	Average value of product
24.	\$52 67
39.	70 59
39.	89 34
42.	110 13
58.	132 46
39.	170 88
6.	<u>214 35</u>

Some of these cows produced as high as 9,000 pounds per annum. The lowest production was 4,127 pounds.



Many a young man leaves a place like this to accept poor pay and a hall bedroom in one of our large cities

J. B. CRESWELL, called before the Committee, testified that he lives in the town of Stamford, about 25 miles from Poughkeepsie; has a dairy farm of 400 acres, keeping from 30 to 40 grade Holstein dairy cows:

"I have an accurate account of the costs for two years which I have kept, and offer in evidence (Exhibit 209 is just half the figures for two years). I got the average for the yearly statements. I employ two men regularly besides myself. The item of \$915.50 is what is actually paid out for labor. I figure my own labor \$40.00 a month the year round. I work the year round. I paid one man \$35.00 a month and the other \$30.00. I pay more now. In addition he gets his house, free milk and board, garden, and time to work in his garden. I now pay one of these men \$38.00, and the other \$35.00, and will have to pay more next year. We are five miles from the factory; go there every day. I have charged 10 cents a hundred for delivery. I put in all expenses because our farm is a cow farm. Everything we do is for the cows, and everything we get from the cows or any other thing is down there. My net loss on a year's business was \$774.82. I worked the farm first for two years and I could not come out even."

EXHIBIT 209

COST OF MILK FOR 12 MONTHS, BASED ON COSTS OF YEARS 1912 AND 1913

Expenses

Hired labor	\$915 50
Board, one man for eight months	80 00
Own labor	480 00
Delivering milk	182 50
Equipment bought and repairs	83 47
Horseshoeing.	52 35
Grinding.	49 22
Feed bought	594 51
Stock bought	397 68
Seed bought	79 93
Threshing, veterinary, etc.	28 56
Taxes.	210 90
Insurance.	50 00
Repairs to buildings	150 00
Wire fencing	40 00
Interest on investment	1,080 00

Total expenses \$4,474 62

Receipts

Sales not milk	\$178 88	
Increase in inventory	370 00	
		<u>548 88</u>
Cost of producing 182,605 lbs. milk		<u>\$3,925 74</u>
Cost per hundredweight, \$2.15.		
Cost per quart, .04 6/10.		
Received for above milk		<u>\$3,150 92</u>
Average price received per hundredweight, \$1.72.		
Average price received per quart, .03 7/10.		
Net loss on year's business		<u>\$774 82</u>
Net loss per hundredweight, .43.		
Net loss per quart, .009.		

F. H. LACY, called before the Committee, testified that he is manager of the Dutchess County Farm Bureau, and a graduate of Cornell University:

"I have got cost figures here on one farm. This information has been kept month by month during the past year in connection with cow testing association work, but involves figures which some cow testing associations do not take into consideration.

"At the beginning we took an inventory of animals individually comprising each animal among the adults and young stock; also equipment, which included a milk wagon and Ford auto for delivery, and some cans. I have this data tabulated. We have a net increase on account of live stock of \$87.00, due largely to the fact that the animals which we called calves at the beginning of the year were transferred to the heifer column at the end of the year. I consider that the owner's inventory was conservative.

"The cows are valued individually. I have worked out this cost account and the cost per hundredweight, and the figures are for the year ending December 1, 1916. The owner is Elias Cookingham, Staatsburgh, N. Y. We have credited the average increase in value of cows during the year.

"There were on hand at the beginning of the year 26 cows. One died, three were sold for \$80.00. Three cows were purchased for \$310.00. At the end of the year there were 25 cows on hand. Hay is figured at \$12.00 per ton; silage at \$5.00 per ton, and labor at 25 cents per hour. An actual account was taken of the time used in caring for the cows. The herd production averaged over 5,000 pounds."

EXHIBIT 212

SUMMARY OF COSTS, YEAR ENDING DECEMBER 1, 1916

Feed and cows.....	\$1,837
Feed (other cattle).....	156
Bedding.....	56
Labor (cows)	801
Labor (other cattle).....	25
Buildings:	
Insurance.....	4
Repairs.....	50
Interest on \$875 (cow stable only) at five per cent.....	44
Equipment:	
Depreciation on wagon.....	2
Depreciation on Ford.....	50
Upkeep, gas, oil and tires.....	133
Depreciation on cans.....	8
Interest on investment (\$310)	15
Interest on investment in stock (\$1,425 at five per cent).....	71
Ice.....	18
Milk testing	25
Feed grinding	12
Fly killer	3
White-washing material	5
Total.....	<u>\$3,315</u>
Milk sold (1,251 cwt.=58,860 quarts).....	\$2,531
Milk used at home (975 quarts).....	42
Total milk (59,839 quarts).....	<u>\$2,573</u>
Cattle increase	\$87
Manure at \$10 per cattle unit.....	280
Bull service	5
	<u>372</u>
Total returns from herd.....	<u>\$2,945</u>
Total herd costs.....	\$3,315
Total herd returns.....	<u>2,945</u>
Net loss	<u>\$370</u>
<i>Cost of Milk</i>	
Total herd cost.....	\$3,315
Herd returns other than milk.....	<u>372</u>
Net cost of milk (1,271 cwt.).....	<u>\$2,943</u>
Cost of milk per cwt.....	<u>\$2 34</u>

NOTE.— Production per cow, 5,085 lbs.

W. H. Hook, called before the Committee, testified that he is Farm Bureau agent of Ulster county, with headquarters at Kingston, N. Y.:

"A farm survey was made in the Wallkill Valley in the year 1914, of 54 farms; 18 of them applied particularly to dairy farms. The 18 records used includes all of those farms selling milk, which had six or more cows, and less than five acres of fruit, of varying ages. The purpose was to distinguish fruit farms from dairy farms. Of the total income, 70 per cent was from the dairy and 15 per cent from the crop sales. Fruit sales amounted to only \$34.00 per farm. Farm profit is best measured in terms of labor income. Labor income is what the farmer has for his year's work, in addition to a house and the usual farm products that he uses. All farm expenses, except the value of the operator's own labor and interest at 5 per cent on the capital invested, are deducted. The labor income of these 18 farms are given below:

"One-third of them was less than nothing; one-third from \$1.00 to \$500, and one-third over \$500. The average of the 18 is \$321.

"A good farm hand can get from \$30 to \$40 or more per month, besides a home and farm products. If \$30 is considered a reasonable wage, then half of these farms are unprofitable. At \$40 per month, two-thirds of the farms are unprofitable; that is, they do not pay the operators their wage above expenses and interest. On the average, these 18 farmers receive \$26.75 per month for their work. If these men work 10 hours per day for 300 days, and 5 hours per day for the other 65 days in the year, they receive 9.7 cents per hour for their work. These wages are for managing a business with over \$10,000 capital, and yet a business where over half of the operators do not make ordinary wages."

JOHN McNAMARA, called before the Committee, testified:

"I live in Herkimer county, near Richfield Springs, and have been in the dairy business 21 years. I have 38 cows and have 64 or 65 head of cattle. They average about 5,000 pounds production per year. I aimed to make winter milk until this year. I sold it to Borden's at Richfield Springs on butter fat tests, but I have stopped making winter milk. I cannot get enough returns from

the milk to pay for the food and labor. I tried it three years, and now I have gone out of the winter milk business; will buy less grain, and eliminate a large part of the labor. Quite a few of my neighbors are looking at it in the same way. More farmers will quit dairying than will quit winter milk. I am not going to sell the cows now, but I must stop buying Western grain. As the result I won't have enough cows to take up all my summer pasture, but about four weeks ago I got a small flock of sheep.

"Twenty years ago I gave \$12.50 per acre for 300 acres of as good a land as there is in this country. The buildings cost more than I paid for the farm. Thirteen years ago I gave \$1,855 for another farm, and now I just nicely make my living by working pretty hard. My labor pays for my board and clothes.

"I made more money when I got 7 and 8 cents a pound for cheese, than I do to-day at 15, 16 and 17. The cattle freshened in the spring and then went to pasture. They were fed very little grain. When it came fall we dried them off and we were not buying feed to this great extent or keeping extra help in the winter. With winter milk you have got to keep the same routine of business. My dairy always showed a profit until I commenced to make winter milk, four or five years ago. Then I kept going in deeper and deeper, and came to the conclusion that that part of it should be cut out. The increased cost of labor was not so much. I can't just exactly explain it, but I know I have not made good since I went into it three years ago. It takes until August to pay the feed bills every year that I have incurred on winter dairying. Prior to that I had a little money all the while, and since then I have been a little in debt all the while. I have always had good dairies."

WILLIAM A. BENTON, called before the Committee testified:

"I live at Wassaic, town of Amenia, about 25 miles from Poughkeepsie. I have a farm of 387 acres. I have a herd of 35 grade Holstein dairy cows. I sell my milk to Borden's in Wassaic. I have some cost figures for this farm covering 1915. Everything that is on this farm goes into the dairy business. I estimate the value of the farm at \$10,000. These are my cost figures as I make them for the year 1915:

Interest on \$10,000 at five per cent.....	\$500 00
Interest on personal property and equipment, \$6,760, five per cent.	338 00
Taxes.	106 28
Depreciation on buildings and fences per year.....	200 00
Depreciation on personal property other than dairy.....	411 60
Wages paid in cash.....	1,452 00
Feed purchased	1,090 92
Fertilizer purchased	48 00
Seeds purchased	137 22
Lime for whitewash.....	1 00
Veterinary.	15 50
Gasoline for engine and truck.....	40 00
Seed corn	15 00
Total.	<u>\$4,417.52</u>

In 1915, I had 28.33 dairy cow units. I figure the cost to me per cow that year as follows:

Interest charge	\$29 58
Taxes.	5 94
Depreciation of building and fences.....	7 60
Depreciation on farm tools, horses and personal property other than dairy	14 52
Wages paid in cash.....	51 25
Feed purchased	38 51
Fertilizer purchased	1 70
Seed purchased	4 88
Lime for whitewash.....	04
Veterinary, etc.	55
Gasoline.	1 41
Seed corn	53
Total.	<u>\$156 51</u>

Receipts	Dairy	Per cow
Milk sold, 223,625 pounds.....	\$3,690 26	\$130 26
Calves sold	99 16	3 15
Manure value	552 44	19 50
Milk used in family, 3,174 pounds.....	52 68	1 85
Grains fed hens.....	15 00	55
Total.	<u>\$4,409 26</u>	<u>\$155 64</u>

There is nothing in that account for my labor at all. I work on the farm, but I haven't received my pay as yet. The item for labor is the actual labor, which I had to hire. I took the value of manure from the Cornell University figures, but half of that is loss without great expense. Of course, I had my home on the dairy farm. I do not think I can give any idea of the cash value of that.

Assemblyman Witter.—My argument is that where a man works all of the year and don't receive anything for his labor, he ought to be entitled to a home.

Mr. Benton.—I don't raise sheep. I have some poor land that would be well suited to sheep, but various reasons seem to be against it. Dogs that run in is one thing. We have no knowledge of the sheep business for another. We have to find that out. This farm was not doing any worse in 1915 than it did in 1914. We sold 183,214 pounds of milk in 1914 and that milk brought \$3,044.09. They were doing better in the year 1915 than they did in 1914. The price per hundred for 1914 was \$1.66 and the receipts per cow were \$117.85."

F. T. MILLER of Hinsdale, N. Y., made the following statement:

"I have a herd of 14 dairy cows and have computed the cost per cow for the year 1915 and the income. The average production was 4,471.3 pounds.

<i>Receipts</i>	
Milk sold	\$63 73
Value of manure.....	5 50
Calf.	1 50
Milk into veals.....	3 15
Butter.	2 17
Total credit	<u>\$76 05</u>
<i>Expenses</i>	
Food; hay, two tons at \$17.....	\$34 00
Corn fodder, two tons at \$4.....	8 00
Oat straw, 500 pounds.....	1 00
Millet hay, 200 pounds.....	80
Turnips, twenty bushels at fifteen cents.....	3 00
Rape.	40
Grain.	7 00
Pasture.	9 00
	<u>\$63 20</u>
<i>Other Costs</i>	
Horse labor, 23 hours at fifteen cents.....	\$3 45
Man labor, 146 hours at twenty cents.....	29 20
Insurance, cow and barn.....	75
Depreciation on cow.....	2 50
Taxes on cow and barn	1 00
Interest on cow.....	3 60
Bedding.	1 25
Bull service	4 25
Light, medicine, veterinary.....	50
Heating water	25
Total cost	<u>\$109 95</u>
Total credit	<u>76 05</u>
Loss.	<u>\$33 90</u>

GEORGE MILLER of Slate Hill, Orange county, called before the Committee, testified:

"That he has a farm of 100 acres, with 18 dairy cows and some young stock, some pure-breds and some grade stock. I have tried to keep an account of the cost of production from July 1st, 1915, to July 1st, 1916. The herd produced 64,500 quarts of milk, delivered to the creamery, and 730 quarts for household use. I make the following farm account:

Receipts

Milk sold creamery	\$2,350 42
Milk, household use	26 18
Hay sold	125 00
Calves sold	90 50
Total receipts	<u>\$2,592 10</u>

"I include the feed of young stock with that of the dairy, because I make no charge for depreciation in dairy cows or exchange as the growing heifers take the place of discarded cows. I include horse feed because no charge is made for hauling milk, feed, manure, hay, etc. Also bull feed included, because no charge is made for service.

Expenses

Feed.	\$1,267 03
Rent of farm	450 00
Filling silo, actual cost	64 50
Horseshoeing, wagon and harness repairs.....	75 00
Seed corn for ensilage	5 50
Stock insurance	9 03
Interest and depreciation on \$1,500 worth of farm tools.....	90 00
Filling ice house	15 00
Interest on 18 cows at \$100 each	108 00
Total expense	<u>\$2,084 11</u>

"This leaves \$509.99 for the year's labor for myself, my wife and two boys. I thought the easiest way to get at the cost of the farm and buildings was to charge a rent rather than to charge interest and insurance for up-keep of the buildings. That is a low rent figure for that farm. One of my sons is seventeen and the other eighteen. I do not buy any hay or silage."

NOTE BY COMMITTEE.—Mr. Miller's figures will not produce accurate results, as he should not charge rent for the whole farm and then charge again for the hay and roughage.



Just a glimpse of the beauties of the Schoharie valley



H. J. BROWN of Smithville Flats, Columbia county, made the following statement:

"I have only kept books in a crude way since May 1st, 1915, so I cannot give as clear a statement as I would like to be able to furnish. I am running a farm of 74½ acres. I milked seven cows for the season and one was farrow. I herewith enclose statements of what I received from the dairy. Note the difference of butter fat test from Sept. 30, 1915, 3.9 per cent., and Oct. 6, 3.2 per cent. You will also note several jumps from two to five points. I began taking my milk May 5th, 1915.

June 15, 1915.	Check	\$50 20	Pounds milk, 5,171	22 lbs. cream, 40 per cent.
July 15, 1915.	Check	57 32	Pounds milk, 6,281	
Aug. 15, 1915.	Check	47 65	Pounds milk, 5,117	
Sept. 15, 1915.	Check	35 53	Pounds milk, 3,740	
Oct. 15, 1915.	Check	28 76	Pounds milk, 2,701	
Nov. 15, 1915.	Check	45 17	Pounds milk, 4,210	
Dec. 15, 1915.	Check	35 52	Pounds milk, 2,811	
Jan. 15, 1916.	Check	24 63	Pounds milk, 1,734	
Feb. 15, 1916.	Check	18 76	Pounds milk, 1,402	

Total milk checks. \$343 52

33,167 total pounds.

"Note the large amount I received from 33,167 pounds of milk and 22 pounds of 40 per cent cream, \$343.54, just a fraction over a \$1 per hundred average.

Returns from cows at factory	\$343 54
One veal calf	13 72
100 lbs. butter, for our own use, at 30c.....	30 00
	<u>\$387 26</u>
5 dairy skins, at 75c	3 75
Total.	<u>\$391 01</u>

"Some of the expenses to come out of the returns from dairy:

To hay I had to buy	\$37 00
1 ton phosphate	25 00
1 second-hand harness	4 25
1,000 ft. hemlock lumber at mill.....	15 00
horseshoeing bill	26 75
hired man for six months, at \$30.....	180 00
coal bill (no wood on place, have to use coal).....	54 00
feed bill for team	182 00
feed bill for team	72 00
fire insurance	6 20
grass seed, oats and corn.....	45 75
new roller	25 50

roof on shed	12 00
40 rods fence, at 30c.	12 00
120 posts, at 8c.	9 60
	<hr/>
	\$707 05
	<hr/>
Total receipts from place	\$391 01
Earned with team off place	200 56
	<hr/>
	\$591 57
	<hr/>

"Leaving \$115.48 short of expenses and I have not figured in any of our living, nothing for my wife's work and my own labor, nothing for interest on money invested in farm tools and stock, nothing for depreciation of tools and buildings. Also nothing for the hay cut on farm, also one other little item of taxes, which were \$48.71, and no allowance for pasture.

"When a man keeps strict account of his farming business, it is no wonder they move from the farm to the cities."

ADDISON CRAWFORD, called before the Committee, testified:

"I live at Searsville, about 12 miles from Middletown, Orange county; have a farm of 165 acres. I have 15 milk cows, grade Holsteins, partly. I have kept an account of the cost of production for September and October, 1916. It is as follows:

<i>September</i>	
Pasture for 15 cows, at \$2 each	\$30 00
Grain feed for 15 cows, at \$28 a ton	28 00
Hired man, at \$30 a month	30 00
Hired girl, at \$12 a month	12 00
Interest on 15 cows, at \$80 apiece, one month	6 00
Cartage, 90 cans at 10c. a can	9 00

Total expense	\$115 00
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<i>Receipts</i>	
3,450 quarts of milk, at 3½c a quart	\$120 78
Extra allowance for butter-fat	3 11
	<hr/>
Total.	\$123 89
	<hr/>
Balance.	\$8 89
Interest on farm, valued at \$10,000, at 5 per cent.	42 00
Net loss	34 00
	<hr/>

NOTE BY COMMITTEE.—Mr. Crawford cannot justly charge to the dairy \$42 per month for rent of farm, as he has already charged the cows \$30 for pasture, which was a return from the farm. It would seem that the utmost this item could be was \$12 for the month, which would leave his net loss, assuming his other figures to be correct, of \$3.11, together with his own labor.

My account for October is as follows:

Expense

Pasture for 15 cows, at \$2.....	\$30 00
Feed for 15 cows, 1½ tons, at \$32.....	48 00
Hired man, one month	30 00
Hired girl, one month	12 00
Interest on cows, one month.....	6 00
Cartage, 81 cans, at 10c a can.....	8 10
Total expense	<u>\$134 10</u>

Receipts Under Dairymen's League Contract

3,647 pounds of milk at \$2.38 per cwt.....	\$86 80
3,391 pounds of milk at \$2.44 per cwt.....	82 74
Total receipts	<u>\$169 54</u>
Less expense	<u>134 10</u>
Balance.	<u>\$35 44</u>
Interest on farm, one month	\$42 00
Net loss	<u>6 56</u>

NOTE BY COMMITTEE.—Assuming Mr. Crawford's figures to be otherwise correct, charging the dairy with \$12, the excess of interest cost over the pasturage charge, there should be deducted from the \$35.41 the \$12, which will leave a net profit for the month of \$23.44. The statement is somewhat interesting as computed for the reason that a net loss in September of \$3.11 by the Dairymen's League movement was changed into a labor income of \$23.44 by Mr. Crawford's statement. It should be borne in mind in considering this statement that the prices paid Mr. Crawford for his milk in the month of October, 1916, were entirely different and far in advance than the prevailing prices paid for milk for several years past in this State.

The Committee desires to make it clear that the schedules, exhibits and extracts from testimony here presented are only a small per cent of the evidence actually received before it. It is the object of the Committee in making this report to include therein and report to the Legislature at this time only such of the voluminous record as will give a fair view of the nature and extent of the evidence received by the Committee throughout the counties of the State during the period from July 1st to November 20th, 1915. Nor is the evidence exhausted upon this point. It yet remains to be established what is the actual economic cost of keeping a dairy cow for a year in the State of New York, per 1,000 pounds of milk produced. Conditions under which production is had are so varying, so affected by the season of the year, local market values of hay and roughage, building values and assumed land values, that it requires the most careful and extensive study to reach reliable and accurate conclusions of the average cost throughout the State upon this point.

We summarize some of those contained in this record as follows:

FOOD COST AND PRODUCTION

	Food cost per cow	Production per cow
Boston Chamber of Commerce conclusions, Class 1.....	\$49 40	5,293 pounds
Boston Chamber of Commerce conclusions, Class 2.....	51 54	6,590 pounds
Boston Chamber of Commerce conclusions, Class 3.....	68 00	8,000 pounds
Delaware County Survey, 5,308 cows, 1912, food and bedding.....	82 50	4,444 pounds
Delaware County Survey, 5,030 cows, 1913, food and bedding.....	76 13	4,695 pounds
Northern Chemung Cow Testing Ass'n..	43 00	4,000 pounds or less
Northern Chemung Cow Testing Ass'n..	52 00	4,000-5,000 pounds
Northern Chemung Cow Testing Ass'n..	56 00	5,000-6,000 pounds
Northern Chemung Cow Testing Ass'n..	58 00	6,000-7,000 pounds
Northern Chemung Cow Testing Ass'n..	62 00	7,000-8,000 pounds
Northern Chemung Cow Testing Ass'n..	69 00	8,000-9,000 pounds
Northern Chemung Cow Testing Ass'n..	71 00	9,000 pounds and over
New York State School of Agriculture at St. Lawrence University.....	73 20	7,160 pounds
Dr. Carl W. Larson's type cow.....	75 29	8,500 pounds
Dr. Larson's second class.....	44 39	3,000 pounds
Chemung County Survey, 237 hill farms, Class 1.....	45 00	Receipts per cow \$50 and less
Chemung County Survey, 237 hill farms, Class 2.....	51 00	Receipts per cow \$51 to \$75
Chemung County Survey, 237 hill farms, Class 3.....	60 00	Receipts per cow \$76 to \$100
Chemung County Survey, 237 hill farms, Class 4.....	66 00	Receipts per cow over \$100
Chemung County Survey, 115 valley farms, Class 1.....	49 00	Receipts per cow \$50 and less
Chemung County Survey, 115 valley farms, Class 2.....	55 00	Receipts per cow \$51 to \$75
Chemung County Survey, 115 valley farms, Class 3.....	68 00	Receipts per cow \$76 to \$100
Chemung County Survey, 115 valley farms, Class 4.....	71 00	Receipts per cow \$101 to \$125
Chemung County Survey, 115 valley farms, Class 5.....	76 00	Receipts per cow over \$125
Averages for hill and valley regions, 237 hill farms.....	47 00	Receipts per cow \$62
Averages for hill and valley regions, 115 valley farms.....	61 00	Receipts per cow \$88
George M. Welles & Son.....	84 18	9,000 pounds
Herd No. 1, Tioga county.....	61 33	6,400 pounds
Herd No. 2, Tioga county.....	130 00	Production unknown
Herd No. 3, Tioga county.....	70 00	8,500 pounds
Herd No. 4, Tioga county.....	94 40	6,500 pounds
Herd No. 7, Tioga county.....	94 80	Production unknown
Herd No. 8, Tioga county.....	68 50	Production unknown
Thomas Gahagan, Broome county.....	55 67	Returns per cow \$75
George A. Adams, North Norwich.....	83 20	8,666 pounds
Ten herds in New Berlin Cow Testing Association:..		
Herd No. 1.....	56 93	5,547 pounds
Herd No. 2.....	44 48	6,500 pounds

	Food cost per cow	Production per cow
Herd No. 3.....	\$33 59	2,250 pounds
Herd No. 4.....	52 91	6,413 pounds
Herd No. 5.....	42 60	6,600 pounds
Herd No. 6.....	38 25	6,000 pounds
Herd No. 7.....	32 60	4,800 pounds
Herd No. 8.....	34 25	5,400 pounds
Herd No. 9.....	40 08	4,900 pounds
Herd No. 10.....	54 26	6,454 pounds
Average 10 herds, New Berlin....	41 33	5,463 pounds
Mr. Smith's computation from cost ac- counts, Chenango county, Class 1.....	38 00	4,000 pounds
Mr. Smith's computation from cost ac- counts, Chenango county, Class 2.....	49 00	6,000 pounds
Mr. Smith's computation from cost ac- counts, Chenango county, Class 3.....	60 00	8,000 pounds
C. H. Boos, Sherburne, N. Y.....	90 00	9,000 pounds
Bernard Aker, East Cobleskill.....	77 81	Production not given
H. B. Livermore, Sangerfield.....	117 61	10,500 pounds
F. O. Ross' computation, 2,363 cows, Oneida county.....	53 86	5,133 pounds
J. R. Teall's Cayuga County Survey, 50 farms.....	69 45	5,619 pounds
New York State Experiment Farm at Geneva, 20 cow average.....	63 39	6,919 pounds
Markham & Puffer Certified Milk Farm, Monroe county.....	110 00	5,800 pounds
F. S. Markham, Port Leyden, N. Y.....	95 00	8,122 pounds
26 dairies in Montgomery county.....	66 00	5,896 pounds
Average four cow testing associations in Wyoming county.....	52 06	5,503 pounds

PASTURES

It must be remembered that in computing these feed costs many fail to include pasture at all and the pasture and other factors were figured at widely varying sums. In this connection, Dr. Larson in his recent study says:

"Of all the items of cost, the pasture is most important, though it is little mentioned in most previous writings on cost records. Its importance is pointed out by Cooper (Minneapolis Agricultural Experiment Station, Bulletin No. 124), who says: 'Importance of pasture in the economy of the farm' is illustrated by the small quantity of grain or roughage fed during the pastoral season. * * * For practically five months out of each year, the cattle were supported almost entirely upon the grass crop.'

"Professor Warren says: 'Pastures furnish our cheapest feed. The pasture of one cow one day costs 3 to 6 cents. Hay or hay and silage, 12 to 15 cents, grain 12 to 15 cents. A good pasture will

replace all of the hay and much of the grain. Pasture produces more milk than other feed at one-fifth to one-tenth of the cost.' The amount charged for pasture varies with different investigators, as, for example, Hooper and Robertson (Jefferson County Survey) suggest \$1 to \$1.50 per month. Rassmussen (New Hampshire), 25 cents to \$1 per month. Lindsey (Massachusetts), 5 cents per day. Thompson (Delaware County Survey), \$4.29 per cow. Woll (Wisconsin), \$5 per season.

"At these prices the cost while on pasture is very much cheaper than if the cows were fed in any other way. It shows, however, how important a factor the pasture is in calculating feed costs and the importance in indicating in cost records the part of the feed secured from pasture. Calculations show that when corn is worth one cent per pound, a dairyman can afford to pay 10 cents per day, or \$3 per month for good pasture rather than feed his cows in the barn on feed of equal cost.

"It should be said, however, that a high-producing cow cannot get enough food from pasture to keep up her flow and maintain her weight. When pasture is charged at a definite price per month or season, the economy of production favors the smaller producer. Cows giving large amounts of milk need some concentrated feed in addition to pasture. To estimate the general expense, which includes taxes, making, repairing fences, seeding or re-seeding and fertilizing, pasturage would be computed as follows:

"1. Value per acre multiplied by 5 per cent which may be considered as rent.

"2. General expense, which, on the average, will be about \$1 per acre.

"3. Acres required per cow per season, or estimated on the basis of cost per cow, per month. The formula for pasture cost where land is worth \$50 per acre and would pasture one cow on two acres for five months, would be as follows: Rent, \$2.50; general expense, \$1.00; cost per acre, \$3.50; two acres per cow, \$7.00.

"Under certain conditions, pasture will be worth several times five dollars per annum, per cow."

The foregoing evidence indicates the difficulty of ascertaining an exact average cost of food and bedding for the average dairy cow

in the State of New York, or elsewhere. It is obvious that this cost will be entirely different both for labor and food where little grain is used and production is had only from early spring until late fall than where a fairly uniform supply of milk is produced for market milk. In the former case, the product goes largely into butter and cheese. In the latter case, because of the location of the producer, the product is required for market milk as a daily necessity to our large communities, and the territory available for that purpose is reasonably limited. The market milk product, therefore, costs much more to produce and has a continued excess charge for labor and for each other item that enters into the cost of production.

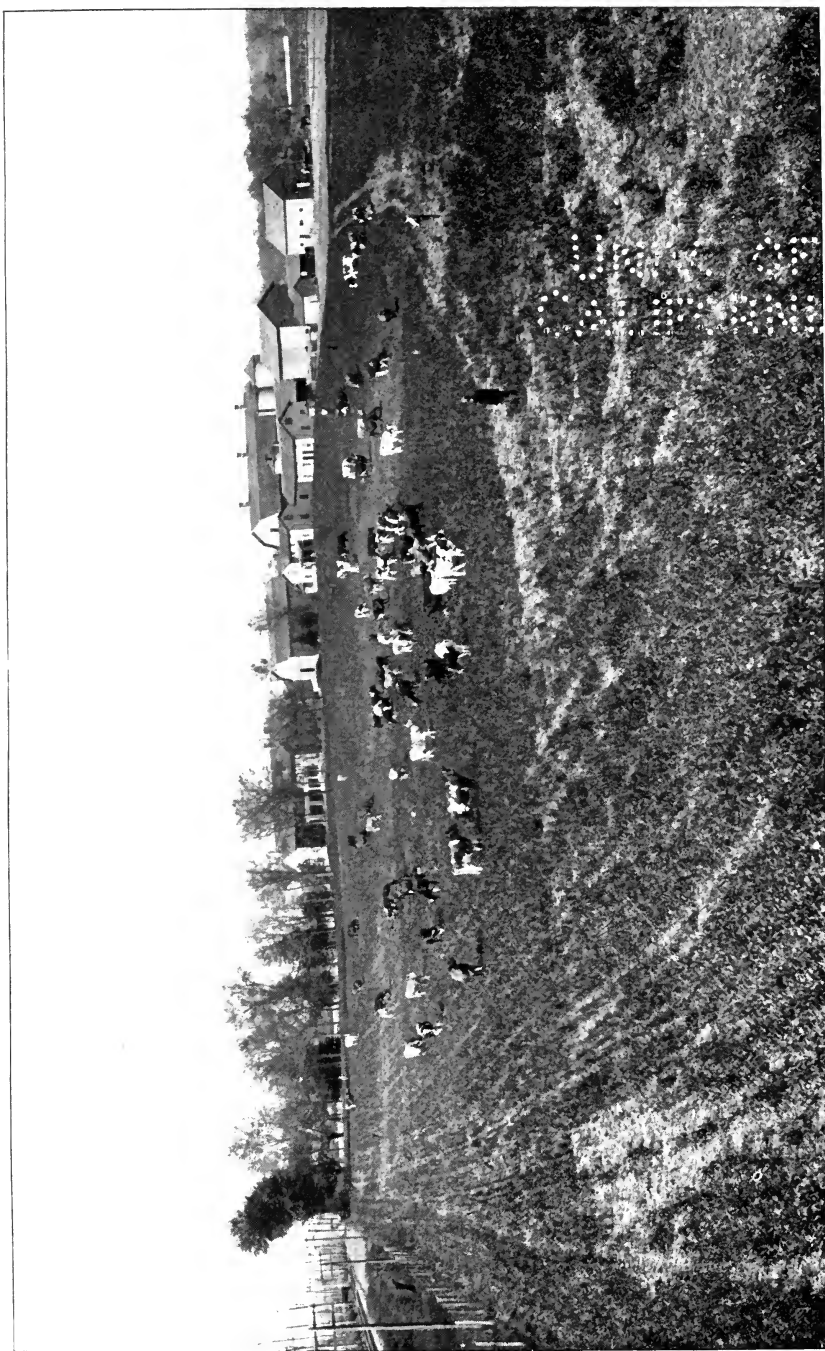
THE VALUE OF MARKET MILK NOT CONTROLLED BY BUTTER AND CHEESE PRICES

The foregoing observations and cost figures make it obvious that the value of market milk is not dependent upon the current market price of butter and cheese. This discovery is not original with this report, yet the evidence produced before us leads to the conclusion that a great many buyers of market milk in fixing prices to be paid therefor, have held forth the argument with more or less effect upon the producers that the price to be paid for market milk should be determined by the current butter and cheese market. In fact, some cases have come to the attention of the Committee where the shipping station price was adjusted according to the prices received by neighboring cheese factories, especially during the summer season. However this may be, a chart prepared by Professor W. W. Fisk of Cornell University, for the use of the Committee, shows that from May 1st until July 1st, 1915, the price of market milk ran considerably below the current prices for butter and cheese during those two months and very nearly approached the price of butter during the months of April and July. This would appear to have been an economic wrong suffered by the producers of market milk in this territory. This is especially apparent when we consider that market milk had the added expense of health board inspections, alterations and improved conditions of production, which were in nowise required for the production of cheese or butter.

AVERAGE COST PER COW PER ANNUM, INCLUDING FEED, LABOR AND OVERHEAD

SUMMARY

	Total cost per cow	Production per cow
Boston Chamber of Commerce conclusions, Class 1.....	\$86 94	5,293 pounds
Boston Chamber of Commerce conclusions, Class 2.....	92 91	6,590 pounds
Boston Chamber of Commerce conclusions, Class 3.....	162 00	8,000 pounds
Delaware County Survey, 5,308 cows, 1912.....	118 84	4,444 pounds
Delaware County Survey, 5,030 cows, 1913.....	107 67	4,695 pounds
New York State School of Agriculture at St. Lawrence University.....	110 70	7,160 pounds
Dr. Carl W. Larson's type cow, Class 1..	150 75	8,500 pounds
Dr. Larson's Class 2.....	120 36	3,000 pounds
George M. Welles & Son, Chemung county.....	144 68	9,045 pounds
Thomas Gahagan, Broome county (estimating Gahagan's labor and that of his family at \$50 per month).....	92 67	Returns per cow \$75
Herd No. 1, Tioga County Survey.....	122 29	6,400 pounds
Herd No. 2, Tioga County Survey.....	176 00	Production unknown
Herd No. 3, Tioga County Survey.....	116 00	8,500 pounds
Herd No. 4, Tioga County Survey.....	166 00	6,500 pounds
Herd No. 7, Tioga County Survey.....	183 50	Production unknown
Herd No. 8, Tioga County Survey.....	169 13	Production unknown
Average of 152 farms in Broome county.	105 00	5,055 pounds
George A. Adams, North Norwich, Chenango county.....	139 20	8,666 pounds
Mr. Smith's computation from cost accounts, farm surveys, general:		
Class 1.....	75 00	4,000 pounds
Class 2.....	95 00	6,000 pounds
Class 3.....	115 00	8,000 pounds
C. H. Boos, Sherburne, N. Y.....	142 00	9,000 pounds
Bernard Aker, East Cobleskill, N. Y...	115 00	Production unknown
Fred Deck, Marcy, Oneida county.....	151 00	7,284 pounds
H. B. Livermore, Sangerfield, Oneida county.....	199 21	10,578 pounds
G. W. Clinch, Westmoreland, Oneida county.....	111 00	6,387 pounds
Markham & Puffer Farm, Avon, Monroe county (certified milk).....	337 00	6,140 pounds
Average cost of 26 dairies in Montgomery county.....	124 63	5,896 pounds
Average four cow testing associations in Wyoming county.....	94 93	5,503 pounds



One of New York State's picturesque dairy farms

SUMMARY OF RETURNS PER COW

Credits for Manure and Calf

In making estimates of the annual cost in keeping a dairy cow, it is usual to deduct from the gross cost the value of the manure and calf. Except in pure bred herds the value of the calf is usually insignificant. In former years they merely furnished calf hides for the tanner, and brought from 75 cents to \$1. Of late years those values seem to increase.

At this time there are perhaps several hundred thousand people in the State of New York who desire and are anxious to buy the veal calf at the age of one week for food. Many authorities contend that such food, the animal being otherwise healthy, is perfectly wholesome and useful, and that the sale of such animal should be permitted.

As a matter of fact, in spite of the law, the traffic in such animals is now carried on in the neighborhood of our large cities to a considerable degree; the foreign-born population going into the country and providing themselves with the young calves direct from the dairymen.

Obviously, if the dairymen could feed the calf for one week, and then sell it as food to those who desire to buy it, this food would be produced at a very low cost to the dairymen, as the milk has no value during that period. The consumer who desires it would likewise be able to procure such calves at a low price, and both parties would profit. Three arguments are presented against the State permitting the use of such food:

First, that the food is unwholesome and unhealthy. This belief is well established in the minds of the greater part of our population, but competent authorities who have studied the matter assert that it has no foundation in fact, that the wholesomeness of the food depends upon the particular animal, and not at all upon the age. The Federal Government seems to assume that to be the case in its present regulation of interstate traffic, the Federal regulation now providing for inspection of the carcass as to general health condition, and not at all as to its age.

Second, it is contended that the consumer fails in the very young animal to get an adequate food value, the tissues lacking the necessary food elements, and having a small comparative food value.

Third, it is contended that the sale of immature veal would cause the general consumer to be prejudiced against all veal on the market, and result in reduced consumption.

These various propositions the Committee makes no attempt to solve, but leaves them to the further consideration of the public. It has been suggested, however, that in the present era of the high cost of living, which of course brings the greater burden to the laboring class, if there is a large element that desires to procure such food, and are entirely satisfied with it, and they are able to procure it at a low cost; and competent authorities establish that the food is entirely wholesome and healthful, it is difficult for the State to justify its action in not permitting so large a number of the population to avail itself of this supply. It is contended that there could only be one sound argument for such action on the part of the State; that is, that if the State did so permit the sale of calves for food at the age of one week, or ten days, it would ultimately injure the dairy industry as a whole in the State, and ultimately through such injury cause increasing prices to all dairy products.

Credit for Manure

The credit to be allowed for the production of manure of the dairy cow is conceded to be substantial by all parties who have studied the question. It is of vast importance to the State as a whole. By its continued production the fertility of the soil of the State is continued. It is a capital investment, however, and an investment and production that brings little present return to the dairymen. Its benefit comes almost wholly to the owner of the land and its returns are largely for future years. It by no means brings returns for labor expended in the current year, and only the man who has secured capital can afford to invest in 1915 his efforts and labor which are to be repaid to him in the future. To the tenant farmer, or the man working a dairy farm on shares, it offers no encouragement whatsoever. The amount of fertility that the State or the owner is to recover in the future years through this production of the dairy offers him little aid. Likewise, it would seem necessary for the continued development of the industry in the State, that the men may be enabled to buy farms and

pay for them largely, or in considerable part, from the profits of dairying. While they will be aided somewhat in their efforts by the continued fertility of their farms, yet these considerations will be far short of affording them relief in meeting annual interest and a small principal payment.

The building of a railroad through any section of the State means ultimately a general improvement in that section, a development increase both of passenger and freight traffic, and consequent greater returns both to the residents and to the railway company. Nevertheless, the freight charges are usually adjusted to bring a present return for the labor and capital invested. The same may be said of any manufacturing enterprise. These suggestions are not fully applicable because it may be said that the manure is a present marketable commodity, but so in a way is the line of location of the railway line. Communities will raise funds and make donations to secure it, and up until a few years ago, towns bonded themselves for large amounts to secure such development. The same may be said of the factory or manufacturing business. So it appears there is a line of argument which may be followed which tends to the conclusion that in ascertaining what returns are fairly necessary to continue the growth of the dairy industry in the State of New York, no great consideration should be given to the present value to be fixed for the fertility supplied by the dairy. It is considered a by-product of great value to the State as a whole, and to the generations that follow, but it is not a factor of great weight with the working farmer and his family, or to the tenant working the farm on shares, when he comes to consider the question as to whether or not he shall continue in the dairy business or abandon farming as a pursuit.

If, therefore, conditions are to be such as to insure satisfactory conditions of home life on the farms, it seems to be necessary that a fair return be produced from current receipts for the dairy products produced. Otherwise, the dairy farmer may say, "In 1914 I had 20 cows. In estimating my profit for 1914 you chadged me with \$15 received from each cow, or \$300 for the manure produced. If that is so, as this dairy had the entire benefit of that valuable production in 1915, you must charge that \$300 as an expense in my 1915 operations. Consequently, you will see that to make any substantial gain by this means, my operations must be carried through a long series of years, whereby the increased fertility of my farm will allow me to

produce milk at a much lower cost; whereas, the history of several years past disputes that argument by showing that I am producing milk at a constantly increasing cost. I cannot afford to supply manure at the price charged in these cost accounts and sell the dairy hay and grain at present prices."

It is suggested that if on a given farm, valued at \$7,000, the dairy of 20 cows is to be credited with a production of manure to the market value of \$300 in any year, which is not to be considered as belonging to and a part of the farm, but to be removed therefrom, that the value of that farm at the end of that year should be taken at \$6,700; showing a depreciation of \$300. It is believed that this is more or less the conviction in the farming communities, and it finds some support in the doctrine of the common law, that the manure on the farm is part of the real estate, and goes with it on a sale, unless specially excepted. Obviously, the manure is so much fertility removed from the real estate by the operations of the current year. So are the milk solids. If it is not to be returned, has not the real estate depreciated to that extent in value? This would apparently be true as to all production, with the exception of that arising from purchased feeds not grown upon the farm. Such importations have an additional value but come at high cost.

The Committee is not attempting to solve this economic question, but only refers to these arguments as tending to show that the question is sufficiently complicated as to have small weight with the average dairyman in determining whether or not he is getting an adequate labor and capital return from his business. Of course, it is a deep-seated conviction in the farming community that the dairy preserves the fertility of the farm and builds it up, and is desirable, and to be followed, if possible; but the type the Committee has in mind in discussing this question are the people who, finding agricultural pursuits ill-paid and over-worked, contemplate abandoning it as a whole. It is probable that the decision of those who have followed dairying as an occupation, will rest upon the net return per cow, for products sold, and a summary of the net returns per cow for dairy products sold, from some of the evidence in the record, may be of interest.

SUMMARY OF RETURNS PER COW FOR DAIRY PRODUCTS SOLD

	Returns per cow	Production per cow
Average of 5,308 cows in Delaware county in 1912.....	\$75 49	4,644 pounds
Average of 5,030 cows in Delaware county in 1913.....	80 90	4,695 pounds
Northern Chemung Cow Testing Association, three year averages, 1911-1913:		
16 cows.....	62 00	3,457 pounds
28 cows.....	90 00	4,605 pounds
38 cows.....	98 00	5,439 pounds
64 cows.....	114 00	6,659 pounds
67 cows.....	129 00	7,493 pounds
34 cows.....	152 00	8,563 pounds
31 cows.....	171 00	9,836 pounds
Averages for 237 hill farms, Chemung county:		
110 farms.....	37 00	Production not given
66 farms.....	62 00	Production not given
45 farms.....	87 00	Production not given
16 farms.....	119 00	Production not given
Valley farms (6 or more cows):		
15 farms.....	42 00	Production not given
21 farms.....	63 00	Production not given
27 farms.....	87 00	Production not given
32 farms.....	118 00	Production not given
New York State School of Agriculture at St. Lawrence University, 1912.....	112 00	7,160 pounds
Average of 38 Cattaraugus county farms:		
13 farms.....	47 00	Production not given
15 farms.....	64 00	Production not given
10 farms.....	93 00	Production not given
Average of 66 Dutchess county farms, 1914.....	98 00	Production not given
Average of 95 Jefferson county farms...	61 00	4,600 pounds
George M. Welles & Son.....	146 50	9,045 pounds
152 farms in Broome county.....	65 00	Production not given
George A. Adams, North Norwich, Chenango county.....	132 00	8,666 pounds
10 herds, New Berlin Cow Testing Association, average.....	82 51	5,463 pounds
C. H. Boos, Sherburne, N. Y.....	135 00	9,000 pounds
Gouverneur, St. Lawrence county, averages:		
8 farms.....	50 00 or below.	Not given
14 farms.....	50 00 to \$59.	Not given
24 farms.....	60 00 to \$69.	Not given
33 farms.....	70 00 to \$79.	Not given
32 farms.....	80 00 to \$89.	Not given
20 farms.....	90 00 to \$99.	Not given
11 farms.....	Over \$100.	Not given
J. R. Teall's average, Cayuga county, 24 farms.....	82 99	5,619 pounds
Curtis F. Gifford, Wilson, Niagara county.....	136 00	6,000 pounds
F. S. Markham, Port Leyden, N. Y....	121 60	8,000 pounds
Average of 26 farms in Montgomery county.....	90 03	5,896 pounds
Average four cow testing associations, Wyoming county.....	91 21	5,503 pounds

Averages of 233 cows, Carrol Cow Testing Association, 1916:	Returns per cow	Production per cow
24 cows.....	\$52 67	From 4,000 to 9,000 pounds
39 cows.....	70 59	From 4,000 to 9,000 pounds
39 cows.....	89 34	From 4,000 to 9,000 pounds
42 cows.....	110 13	From 4,000 to 9,000 pounds
58 cows.....	132 43	From 4,000 to 9,000 pounds
39 cows.....	170 83	From 4,000 to 9,000 pounds
6 cows.....	214 35	From 4,000 to 9,000 pounds
F. T. Miller, Hinsdale, N. Y., 1915.....	63 75	4,471 pounds

CONCLUSION

It would appear beyond question that the cow producing 5,000 pounds of milk, which was sold at \$1.60 per hundredweight, bringing a return of \$80, could not be kept at a profit during the period from 1911 to 1915, unless a very substantial value is to be allowed for the production of manure. Even allowing for the production of manure at a substantial figure, according to the evidence presented to the Committee, the accounts of those carrying on the industry showed little gain, and in the great majority of instances considerable loss, assuming that labor is to be compensated at the prevailing standard. But the dairyman, in considering the question of whether or not to continue the business, looks principally to the current receipts from the sale of dairy products. As suggested, the continued fertility of the soil will not be seriously considered upon the question of the present adequate labor and capital return.

An examination of the prices paid for milk will disclose that \$1.60 per hundredweight was not secured by the average producer of market milk during the years 1914 and 1915. Both the indications of total returns per cow and of schedule of station prices seem to establish that fact.

METHODS OF BUYING MILK

Prior to the month of October, 1916, there were practically as many different methods of buying milk from the dairymen of the State as there were corporations or individuals in the business of distribution, and except in a few instances, almost as many different methods and scales of prices as there were stations. In

many cases a written contract was drawn and submitted to the dairyman for his signature and a certain number of signatures procured. Usually little attention is paid to the signing of the contracts, either by the distributor or producer. The terms of the contract lying in the milk station or in the possession of some of the dairymen become generally known; the station receives all comers whose milk passes inspection for the product required and milk checks are distributed more or less on the contract basis to all. In other cases, publication is made in the spring or fall for what has come to be known as "the summer contract price," and the "winter contract price," and all dairymen bringing milk are paid those prices. The prices vary or are intended to vary somewhat according to the barn score of the individual dairyman, the butter-fat content, the bacteria count in one or two instances, the locality of the station, the freight rate to New York or other city, the business standing of the buyer and the demand for milk at the particular shipping point. The prevailing method by the smaller dealers or milk station operators is to post the price from month to month on the milk station door.

MILK PRICES

About the month of March, 1916, the Borden Company published and distributed through the buying stations a slip reading as follows:

EXHIBIT No. 10

SUMMER CONTRACT PRICES, 1916

	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4
April	\$1.30	\$1.33	\$1.36	\$1.39	\$1.42	\$1.45	\$1.48	\$1.51	\$1.54	\$1.57	\$1.60	\$1.63
May.	1.05	1.08	1.11	1.14	1.17	1.20	1.23	1.26	1.29	1.32	1.35	1.38
June.	.99	1.02	1.05	1.08	1.11	1.14	1.17	1.20	1.23	1.26	1.29	1.32
July.	1.25	1.28	1.31	1.34	1.37	1.40	1.43	1.46	1.49	1.52	1.55	1.58
Aug.	1.41	1.44	1.47	1.50	1.53	1.56	1.59	1.62	1.65	1.68	1.71	1.74
Sept.	1.50	1.53	1.56	1.59	1.62	1.65	1.68	1.71	1.74	1.77	1.80	1.83

The above prices will be paid to dairymen where they maintain, during this contract, conditions scoring not less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, according to the New York Department of Health score card, as scored by the company's representatives. Dairymen scoring less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, will receive ten cents (10c) per 100 pounds less than the above schedule.

When the patrons of the Borden Company, however, received the payments for April, May and June, 10 cents per hundred addi-

tional was added to those prices. About September, 1915, there was published and distributed in the same way the following document:

EXHIBIT NO. 10

WINTER CONTRACT PRICES, 1915-1916

	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1
Oct.	\$1.60	\$1.63	\$1.66	\$1.69	\$1.72	\$1.75	\$1.78	\$1.81	\$1.84	\$1.87	\$1.90	\$1.93
Nov.	1.70	1.73	1.76	1.79	1.82	1.85	1.88	1.91	1.94	1.97	2.00	2.03
Dec.	1.70	1.73	1.76	1.79	1.82	1.85	1.88	1.91	1.94	1.97	2.00	2.03
Jan.	1.60	1.63	1.66	1.69	1.72	1.75	1.78	1.81	1.84	1.87	1.90	1.93
Feb.	1.55	1.58	1.61	1.64	1.67	1.70	1.73	1.76	1.79	1.82	1.85	1.88
Mar.	1.50	1.53	1.56	1.59	1.62	1.65	1.68	1.71	1.74	1.77	1.80	1.83

The above prices will be paid to dairymen where they maintain, during this contract, conditions scoring not less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, according to the New York Department of Health score card, as scored by the company's representatives. Dairymen scoring less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, will receive ten cents (10c) per 100 pounds less than the above schedule.

These prices, with the additions, prevail, as far as this Committee is able to learn, for all milk delivered at Borden stations, with a variation in the different freight zones, this being the long haul contract.

EXHIBIT NO. 11

BORDEN'S MILK CONTRACT

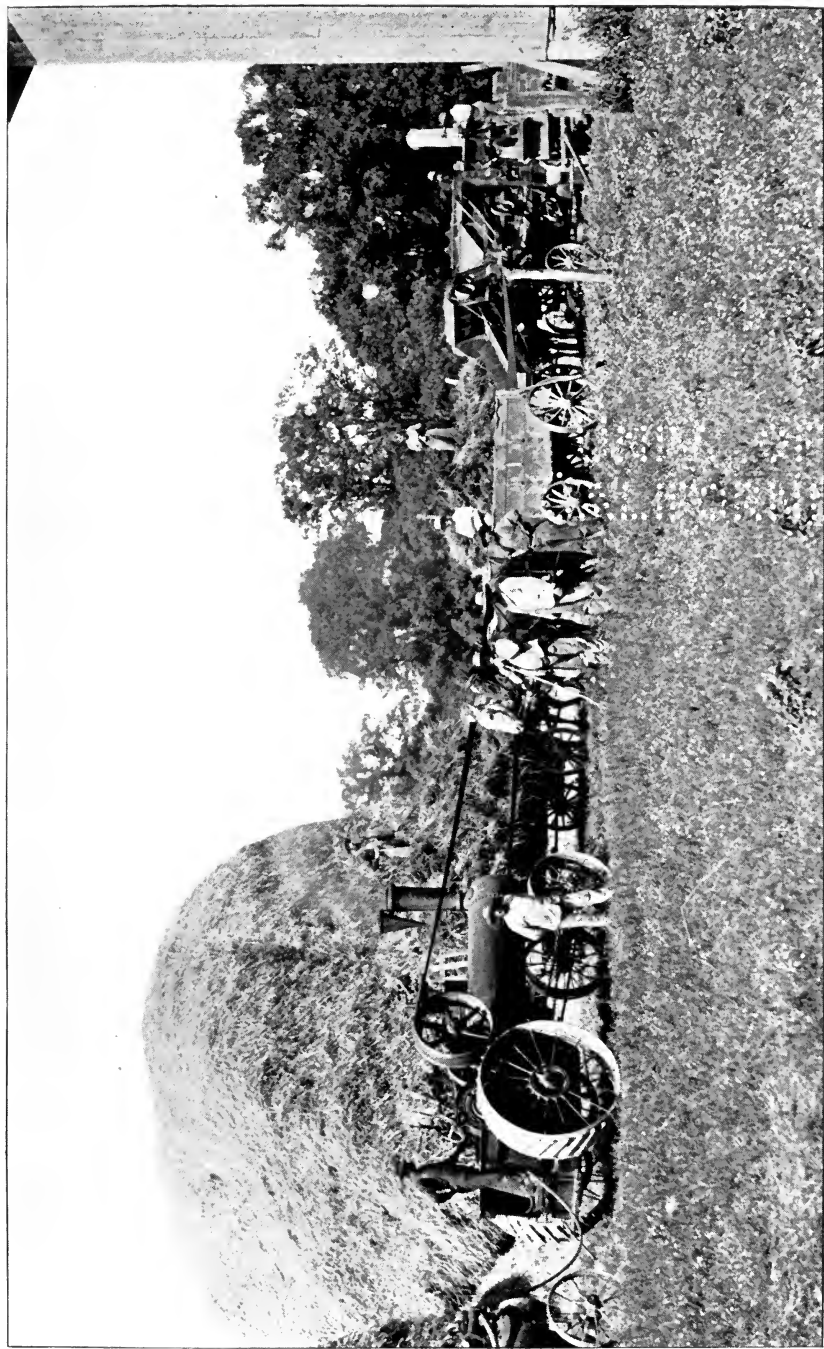
THIS AGREEMENT, made this 15th day of March, 1916, between BORDEN'S CONDENSED MILK COMPANY, party of the first part, hereinafter known as the Company, and each of the undersigned, parties of the second part, hereinafter known as the Dairyman.

WITNESSETH, that the parties hereto for and in consideration of the sum of one dollar, each to the other in hand paid, receipt of which is hereby acknowledged, each agree individually and not for others to perform the agreement herein set forth and specified.

THE DAIRYMAN AGREES to sell and deliver daily to the company, at its plant at Cortland, N. Y., at the hour it names, the amount of milk produced by his or her dairy as specified below, the milking of the morning of delivery and evening preceding, such milk to be whole, sweet, unadulterated, uncontaminated and of standard richness.

That the cow stables will be amply lighted with windows and well ventilated; to keep them clean, removing daily therefrom all manure or foul material; to use no horse manure or foul material for bedding; to keep no hogs, sheep or fowls housed in the said stables; to keep the cows clean;

To thoroughly wash and scald all milk utensils used at the dairy immediately after use morning and evening; to put no milk in unclean cans; to keep the outside of cans clean and bright, and when not in use to keep the cans upside down, with covers over, on a rack provided for this purpose in the milk house;



Threshing near Avon. Wheat averages 24 bushels to the acre in New York State and 14 bushels to the acre in the United States

To provide the milk house with clean surroundings, lighted and ventilated, of suitable capacity and not connected with any stable or kitchen; to be painted or whitewashed inside, to be used for the safe keeping of milk and for no other purpose, except for storing milk utensils;

To have the milking done with dry hands, in the most cleanly manner; immediately after milking to remove the milk, including strippings, to the milk house, strain it through a 100 mesh wire cloth strainer, and to cool the milk to 58 degrees within 45 minutes from the time it is drawn from the cow, and to keep the can of milk in the vat of water until time for delivery; to prevent the milk from freezing in temperature to exceed 58 degrees between 45 minutes after drawing from the cows and when delivered at the Company's plant, to which place it shall be transported on a spring wagon, covered with a clean canvass; to not mix evening's and morning's milk, except the remnants of each milking; to not deliver the milk from a cow that has calf within ten days or from a cow which will calf within sixty days, or from any other cow in an unhealthy condition;

To whitewash the cow stables, sides, ceilings and stalls, thoroughly throughout, within thirty days after signing this contract;

To not feed the cow wet brewery or distillery grain or such ensilage, or such feed as will impart a disagreeable flavor or odor to the milk;

To immediately notify the Company in case of any sickness or disease among the cows of the herd;

To immediately notify the Company if any member of his or her household, or any member of any family occupying the premises on which the milk is produced, has any infectious or contagious disease, or any person who may be assisting in the work of the dairy who comes in contact with any infectious or contagious disease.

When such notification is given and the Company should deem it necessary to discontinue to receive the milk of the said dairy, the Company will remunerate the dairyman for unavoidable loss incurred on the milk during the period of sickness, or until the danger of contagion has been removed.

IT IS MUTUALLY AGREED that the representatives of the company shall at reasonable hours have access to and the right to examine the cows, cow stables, milk house, feed, dairy utensils and place for keeping the same; and that if any cow is found to be suffering with any disease which, in the judgment of the Company's representative, would tend to produce unwholesome milk, such cow shall be removed from the herd, either temporarily or permanently, as may be necessary to ensure wholesome milk; but there shall be no needless sacrifice in any herd, and sufficient evidence of the existence of the disease shall be produced to warrant the removal of any cow;

That should the dairyman be unable to make deliveries of milk to the Company, because of the action of legal authorities, he or she will give notice to the Company and shall be under no obligation to deliver milk to the Company; if, because of the conditions caused by the elements, floods or fire, accident, action of legal authorities, adverse legislation, interruption of railroad transportation facilities, strikes or inability to secure necessary supplies, the Company be prevented or hindered from operating its plant, manufacturing or preparing the milk for shipment, or shipping or marketing its products, the Company shall give notice of the fact and shall thereafter be under no obligation to receive milk from the dairyman, but at the end of

such period or periods and when normal conditions are restored, the parties to this agreement shall, and are hereby bound to, continue the performance of this agreement.

That failure to comply with the requirements of this agreement by the dairyman shall be sufficient warrant for the company to refuse to receive milk from the dairyman, and in such event the Company shall in no way be held liable for any losses sustained; that the Company has the right to cancel this contract in case it has satisfactory evidence that adulterated, skimmed or contaminated milk is being delivered or offered for delivery by the dairyman.

THE COMPANY AGREES to buy from the dairyman the number of pounds of milk assigned individually, if produced and handled as specified herein; wash and clean at its plant the inside of all cans in which milk is delivered; to pay on the 15th day of the month following of delivery, according to butter fat test, the price per 100 pounds of milk as set forth in attached rider, which is a part of this contract. Such butter fats to be determined by an average test made by the Babcock test four times monthly.

Daily average to be delivered.....lbs. for month of April, 1916.
 Daily average to be delivered.....lbs. for month of May, 1916.
 Daily average to be delivered.....lbs. for month of June, 1916.
 Daily average to be delivered.....lbs. for month of July, 1916.
 Daily average to be delivered.....lbs. for month of August, 1916.
 Daily average to be delivered.....lbs. for month of September, 1916.

IN WITNESS WHEREOF, the parties have hereunto interchangeably set their hands the day and year first above written.

BORDEN'S CONDENSED MILK CO.

BORDEN PRICES

SUMMER CONTRACT PRICES, 1916

Short Haul—Eastern Route.

Butter fat	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1
April.	\$1.40	\$1.43	\$1.46	\$1.49	\$1.52	\$1.55	\$1.58	\$1.61	\$1.64
May.	1.15	1.18	1.21	1.24	1.27	1.30	1.33	1.36	1.39
June.	1.09	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.33
July.	1.35	1.38	1.41	1.44	1.47	1.50	1.53	1.56	1.59
August.	1.51	1.54	1.57	1.60	1.63	1.66	1.69	1.72	1.75
September.	1.60	1.63	1.66	1.69	1.72	1.75	1.78	1.81	1.84
	===	===	===	===	===	===	===	===	===
Butter fat	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
April.	\$1.67	\$1.70	\$1.73	\$1.76	\$1.79	\$1.82	\$1.85	\$1.88	\$1.91
May.	1.42	1.45	1.48	1.51	1.54	1.57	1.60	1.63	1.69
June.	1.36	1.39	1.42	1.45	1.48	1.51	1.54	1.57	1.66
July.	1.62	1.65	1.68	1.71	1.74	1.77	1.80	1.83	1.86
August.	1.78	1.81	1.84	1.87	1.90	1.93	1.96	1.99	2.02
September	1.87	1.90	1.93	1.96	1.99	2.02	2.05	2.08	2.11
	===	===	===	===	===	===	===	===	===

The above prices will be paid to dairymen where they maintain, during this contract, conditions scoring not less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, according to the New York Department of Health score card, as scored by the company's representatives. Dairymen scoring less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, will receive ten cents (10c) per 100 pounds less than the above schedule.

These prices, as arranged here, may seem, from casual inspection, to be a radical departure from the traditional method of making milk quotations. It will be found, however, that they represent a forward step in the direction we have always been working and that is toward the condition under which each producer receives pay in exact accordance with the quality. The aim of these prices is to be minutely equitable and at the same time make it profitable for the producer to strive for quality.

BORDEN'S FARM PRODUCTS DIVISION.

ALEXANDER CAMPBELL MILK COMPANY CONTRACT AT CANDOR
STATION, TIOGA COUNTY

This Agreement dated the 16th day of March, 1916, between the Alexander Campbell Milk Company of 802 Fulton street, Brooklyn, and each of the undersigned farmers of Candor in the State of New York.

We, the undersigned farmers for and in consideration of the amount hereinafter named to be paid to us respectively, agree to supply the Alexander Campbell Milk Company with the entire yield of milk and with all the cream produced on our farms, at Candor, to be delivered under the conditions following: That is to say, that all the milk should be absolutely pure, containing no less than $11\frac{1}{2}$ per cent. solids, and produced in places that are scored not less than 20 per cent. for equipment and not less than 35 per cent. for methods by the inspector of the Department of Health of the City of New York. When the milk of any producer is found below the standard, in solid, a sample is taken immediately, and if the sample is also low, the company will refuse to receive milk of such producer, until he shall furnish to the required standard. If at any later period the same producer shall be found delivering milk under such standard, his milk shall be absolutely refused. That all of the milk shall comply in every other respect with the rules and regulations of the said health department and the laws of the State of New York. Night's milk must be cooled, so as to be delivered at the creamery below 58 per cent. Fahrenheit. Morning's milk will be accepted warm for delivery before 8 a. m. All morning's milk delivered after 8 a. m. must be cooled so as to be delivered not above 60 degrees Fahrenheit. This agreement shall continue in force for the six months beginning April 11, 1916, and ending September 30, 1916, during which time the said company shall pay the following prices per 100 pounds of milk:

April.	\$1 32
May.	1 07
June.	1 01
July.	1 27
August.	1 43
September.	1 52

In addition to these prices the premium of ten cents per 100 pounds of milk will be paid to all producers whose farms shall score not less than 25 per cent. for equipment and not less than 43 per cent. for methods.

A further premium will be paid of three cents per 100 pounds of milk for each and every point or one-tenth of one per cent., it shall test above 3.7 per cent. butter fat, a deduction will be made of three cents per 100 pounds of milk for each and every point or one-tenth of one per cent., that

the milk shall test below 3.7 per cent. of butter fat, and an additional premium of five cents per 100 pounds of milk will also be paid to all farmers whose milk shall show a bacterial count of not exceeding 40,000 per cubic centimeter. Failure to comply with the requirements of this agreement by the farmer shall be sufficient warrant for the company to refuse milk from such farmers until such time as the conditions of the agreement are complied with and in such event the company shall not be held responsible for any losses sustained.

That the company has the right to cancel this contract in case it is satisfied that adulterated, skimmed or contaminated milk is being delivered or offered for delivery by the farmer, or that such farmer shall neglect or refuse to carry out the terms or conditions herein stated.

It is further agreed that should any serious interruption occur, caused by fire or accident, or should the means of transportation be interrupted, this company will immediately give notice of the fact and it shall be under no obligation to receive milk from the undersigned farmers while such interruption continues. The said company will make a payment for these supplies on the 10th day of each month, as heretofore.

Witnesses the hands of said parties.

(Signed) ALEXANDER CAMPBELL MILK CO.,

Per ALEXANDER CAMPBELL, Prest.

DAIRYMEN,

(Signed) J. D. VAN SCOY and eleven others.

The station agent testified:

Eleven signed. The rest didn't sign. We received milk from 37 dairies. On July 1, 1916, I received the following letter:

ALEXANDER CAMPBELL MILK CO.

802 Fulton Street

BROOKLYN, July 1, 1916.

Creamery Manager, Candor, N. Y.:

Patrons of the Alexander Campbell Milk Co. are hereby notified that the company will make and pay an increase of ten cents per 100 pounds of milk above the contract prices for all milk received at your creamery station during the past month, June, 1916.

(Signed) ALEXANDER CAMPBELL MILK CO.-

I did not receive such a letter for the May milk. I did for the April milk. We did not increase the May price. I have not got any such letter for the July milk. Most of the patrons got the B milk prices. The farms are rated by Mr. Fish. The B and C milk all goes together and is pasteurized in Brooklyn. It is shipped in the same cans.

MEMORANDUM AND AGREEMENT made this day of March, 1916, by and between the Sheffield Farms Slawson-Decker Co., of the State of New York, party of the first part, and the undersigned producers of milk in Malone, State of New York, parties of the second part. The first party agrees to buy from the second parties and the second parties each for himself agrees to sell all of the good, merchantable cow's milk he or she may produce from April 1, 1916, to October 1, 1916, and deliver it fresh, clean, sweet, of good

flavor, satisfactory to the first party and the Board of Health of the City of New York at the creamery of the first party and in such manner and condition as the first party may prescribe.

Second: First party agrees to pay in addition to stated prices, 3 cents a point per hundred pounds for butter fat from 3.8 to 5 per cent. There will be a deduction of 3 cents per hundred pounds for each one-tenth per cent. below 3.8.

Third: The above tests are to be made on composite samples taken daily and tested three times a month. The average of these three tests each month to be the basis on which premiums are paid.

Fourth: The first party will pay a premium of 10 cents per hundred pounds to all producers who show a total score of 68 per cent. or over. The total score must consist of at least 43 per cent. on methods and 25 per cent. on equipment.

Fifth: The first party will pay a premium each month for all milk delivered to its plant at a temperature of 50 degrees or below, each and every day during the month, of 5 cents per hundred pounds for the months of April, May and June, and 13 cents per hundred pounds for the months of July, August and September.

Sixth: The first party will sell skim milk to second party at 15 cents per can of 40 quarts, but reserves the right during the months of August and September to stop making skim for sale, so that they may ship all of the milk to New York.

Seventh: The first party agrees to pay to the second party on or before the 15th day of each month for such milk so delivered during the preceding month and not to be less than contract prices for those six months. Prices per 100 pounds:

April.	\$1 40
May.	1 30
June.	1 15
July.	1 30
August.	1 45
September.	1 50

NOTE.—These prices were voluntarily increased by the Company later to read as follows:

April.	\$1 50
May.	1 30
June.	1 25
July.	1 40
August.	1 45
September.	1 50

The foregoing contract was signed by twenty-five dairymen in the Malone territory.

In the spring of 1915, Sheffield Farms, Slawson-Decker Company offered the following contract to their patrons at South Kortwright, N. Y.

MEMORANDUM OF AGREEMENT made this 15th day of March, 1916, by and between the Sheffield Farms, Slawson-Decker Company, of the State of New York, party of the first part, and the undersigned producers of milk at South Kortwright, State of New York, parties of the second part:

First: The first party agrees to buy from the second parties, and the second parties each for himself or herself agree to sell to the first party all the good merchantable cow's milk he or she may produce at South Kortwright, aforesaid, from April 1st, 1916, to October 1st, 1916, and deliver it fresh, clean, and sweet, of good flavor, satisfactory to the first party, to the board of health of the city of New York and to the Agricultural Department of New York State, at the creamery of the party of the first part at South Kortwright, at such time and in such manner and condition as the first party may prescribe.

Second: The first party agrees to pay in addition to stated price, 4 cents per hundred pounds for butter-fat from 4.5 per cent. to 5.3 per cent. The first premium of 4 cents per hundred lbs. for 4.6 milk and the maximum premium of 32 cents per hundred lbs. to be paid for milk testing 5.3 per cent. Deductions to be made at 3 cents per hundred pounds for each one-tenth under 4.5 per cent.

Third: For milk delivered during the months of April, May and June, 1916, the first party agrees to pay to second parties an additional 5 cents per hundred pounds, and for milk delivered during the months of July, August and September, 1916, the first party agrees to pay to second party an additional 20 cents per hundred pounds for the milk delivered at a temperature of 50 degrees or lower when dumped in weight pan altogether. This applies for the full month only and not for any period thereof.

Fourth: The first party agrees to pay an additional 10 cents per hundred pounds for all milk delivered from farms the score of which shall be classed by the board of health of the city of New York as grade "A" score (at present 68—consisting of 43 on methods and 25 on equipment, or better). And for all milk delivered from such farms (classed by the board of health of the city of New York as grade "A" score) the average monthly bacterial count of which shall be 100,000 or less, an additional 15 cents per hundred pounds will be paid.

Fifth: The above butter-fat tests are to be made on composite samples taken daily and tested three times a month. The average of these three tests each month to be the basis on which premiums are paid.

Sixth: The first party and its authorized agents and employees shall have the liberty to inspect the cows and stables of every second party at any time during this contract.

Seventh: The first party agrees to pay to the second parties on or before the 15th day of each month for such milk so delivered the preceding month and pay not less than the following prices for this six months:

PRICES PER HUNDRED POUNDS, 1916

April.	\$1 60	10c additional paid
May.	1 30	10c additional paid
June.	1 30	10c additional paid
July.	1 50	
August.	1 65	
September.	1 70	

NOTE BY COMMITTEE.—Ten cents additional was actually paid by this Company for the months of April, May and June.

On March 15, 1916, the Locust Farms Company established its prices as appears by the following letter:

LOCUST FARMS,
458 Tenth Avenue,

NEW YORK, *March 15, 1916.*

Mr. M. STAR, Billings, N. Y.:

DEAR SIR.—The price for 5 per cent. milk eligible for grade A pasteurized for the six summer months of 1916 will be as follows:

April.	\$2 06	per cwt.
May	1 81	per cwt.
June.	1 75	per cwt.
July	1 96	per cwt.
August.	2 12	per cwt.
September.	2 21	per cwt.

With a deduction of 3 cents per cwt. for each one-tenth per cent. butter-fat. Milk not eligible as grade A pasteurized will be taken at 15 cents per cwt. less than these prices, so long as the Department of Health will permit us to handle it through the same creamery.

Yours truly,

LOCUST FARMS COMPANY,
A. CUDDEBACK, President.

In March, 1916, the Farmers' Co-operative Milk Company, Inc., issued the following contract for the station at Poughkeepsie, N. Y.

FARMERS' CO-OPERATIVE MILK CO., INC.

729-731 Main St., Poughkeepsie, N. Y.

THIS AGREEMENT made this March, 1916, between the Farmers' Co-operative Co., Inc., party of the first part, hereinafter known as the Company, each of the undersigned, parties of the second part, hereinafter known as the Dairymen.

WITNESSETH, that the parties hereto, for and in consideration of the sum of One dollar, each to the other in hand paid, receipt of which is hereby acknowledged, each agree individually and not for others to perform the agreement herein specified.

"THE DAIRYMEN AGREE" to sell and deliver daily to the Company's plant at Poughkeepsie, N. Y., before 9 a. m. (barring accidents or storms that render highway travel slow or impossible) milk produced by his or her or their dairy for a term of one year from April 1st, 1916, the milking of the

moning of delivery, and the evening preceding. The milk so delivered to be produced from cows free from disease, and to be sweet, unadulterated, and within the standards prescribed by law for grade "B" milk, raw.

THAT THE evening's milk immediately after being drawn from the cows shall be cooled to a temperature not exceeding 54 degrees Fahrenheit, and the morning's milk cooled to temperature not to exceed 62 degrees before delivery is made.

TO MAINTAIN a dairy scoring not less than 23 per cent. on equipment and 37 per cent. on methods, as scored by the Company's or City of Poughkeepsie Representative on the score card adopted by the Department of Health of the city of Poughkeepsie.

TO MAINTAIN at all times a bacteria count within the standard (200,000 per cubic centimeter) as set by the law for grade "B" milk, raw.

THAT EXAMINATIONS by which the bacteria counts are determined shall be made by the Company's or Poughkeepsie City Bacteriologist from composite samples taken from evening's and morning's milk delivered to the plant of the Company.

THAT THE NUMBER of bacteria examinations made in any month this contract prevails shall be as many as is required to, and in the judgment of the Company tend to assist the producer to maintain a bacteria count within the maximum allowed (200,000), and to earn the premiums offered.

TO IMMEDIATELY notify the Company in case of any disease or sickness among the cows of the herd.

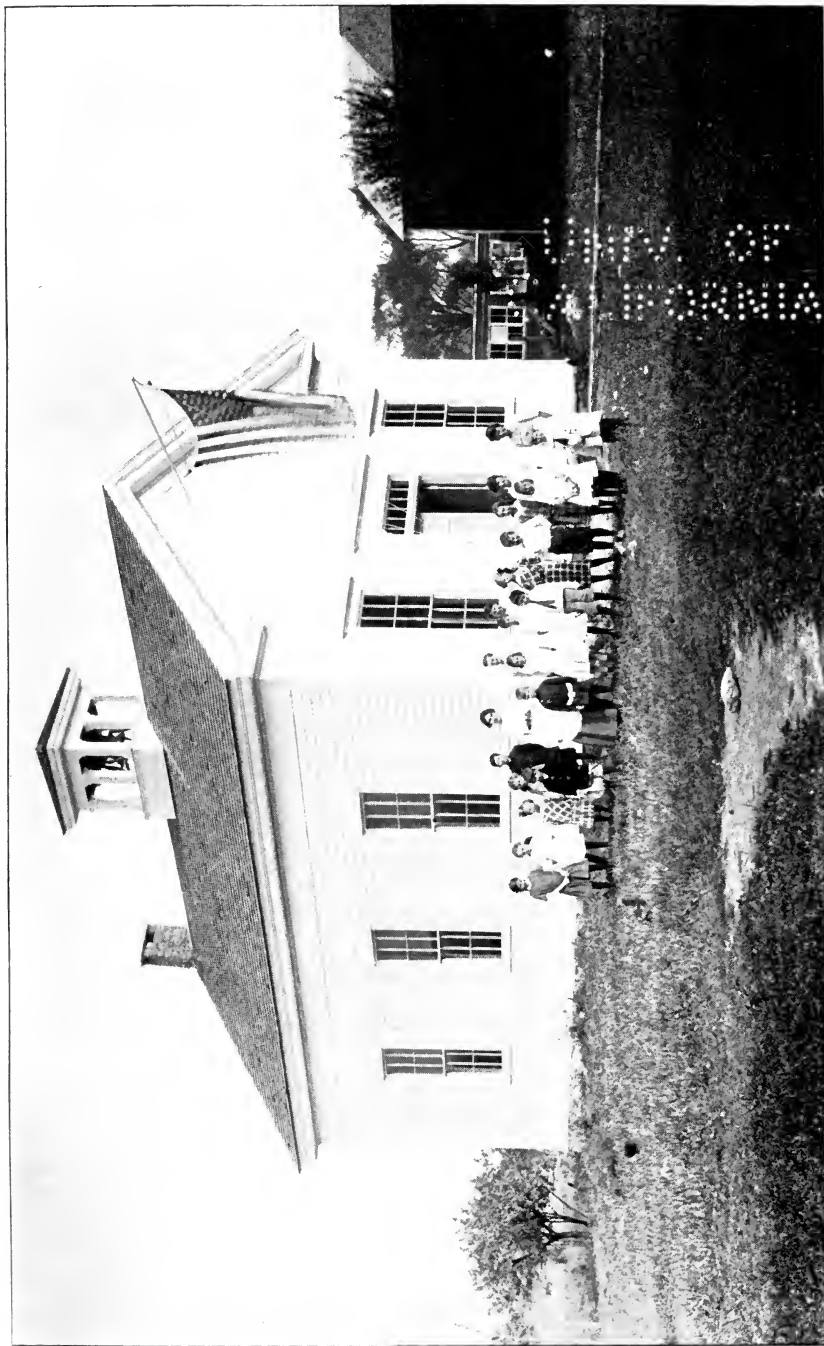
TO IMMEDIATELY notify the Company if any member of his or her household, or any member or any family occupying the premises on which the milk is produced, has any infectious or contagious disease, or any person who may be assisting in the work of the dairy who comes in contact with any infectious or contagious disease.

When such notification is given and the Company shall deem it necessary to discontinue to receive the milk of said dairy, the Company shall remunerate the Dairyman FOR UNAVOIDABLE LOSS INCURRED on the milk during the period of sickness or until the danger of contagion has been removed.

To permit the representatives of the Company, City and State Department of Health access to, and the right to examine the stables, utensils, premises and cows (physically, and that if any cow is found to be suffering from a disease, which in the judgment of the Company's representative would tend to produce unwholesome milk, such a cow shall be removed from the herd, either temporarily or permanently, as may be necessary to ensure wholesome milk, sufficient evidence of the existence of disease shall be produced to warrant the removal of any cow.

THAT FAILURE to maintain grade "B" standards, and to fulfill this agreement by the Dairyman shall be, upon necessary proof to the producer, sufficient warrant for the Company to refuse to receive milk from the Dairyman, and in such event the Company shall in no way be held liable for any losses sustained.

IT IS FURTHER agreed by both parties that in the event the Company's home plant should be destroyed by fire, explosions, tornadoes or any act beyond the Company's control, which would render the plant unsafe for persons to labor therein, the Company shall then be temporarily released from



During the last decade rural New York has decreased 20,000 annually in population. The city proves a powerful magnet for the young people soon after they leave the country schools

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

receiving or paying for the dairyman's milk, providing speedy preparations are at once started to effect suitable quarters to resume receiving the milk or that if the dairyman's cow barns or cows are likewise destroyed, he or she shall be released to furnish milk under this contract until such time as normal conditions have been restored.

"THE COMPANY AGREES" to buy from the dairymen and to pay for milk produced and delivered as herein specified, and testing 4 per cent. fat, the prices herein quoted per 100 pounds.

TO PAY an additional 2 cents per 100 pounds for every one-tenth of 1 per cent. the milk contains over and above 4 per cent. fat and make the same deductions from prices quoted (2 cents per 100 pounds) for every one-tenth of one per cent. the milk is found to contain less than 4 per cent. fat.

TO PAY in addition to the flat prices quoted, 10 cents (10c.) per 100 pounds for the milk delivered by dairymen who maintain dairy conditions scoring not less than Twenty-five per cent. on equipment and Forty-three per cent. on methods, according to the Poughkeepsie Department of Health score card as scored by the Company's or City of Poughkeepsie representative, together with the bacteria count within 160,000.

TO MAKE payments on the 16th day of the month following month of delivery.

Prices Per 100 Pounds (Without Premiums)

Month.	Per Cwt.	Month.	Per Cwt.
April.	\$1 75	Oct.	\$2 10
May.	1 55	Nov.	2 10
June.	1 45	Dec.	2 00
July.	2 10	Jan.	1 90
Aug.	2 10	Feb.	1 85
Sept.	2 10	Mar.	1 85

IN WITNESS WHEREOF, the parties have hereunto interchangeably set their hands the day and year first above written.

FARMERS' COOPERATIVE MILK CO., INC.

By.....
.....Dairymen.

To Producers

At the close of the business year whatever surplus shall have accumulated will be apportioned according to section 3 of the By-Laws and the Laws governing such Cooperative Companies.

At the same time this company issued a contract for its patrons at Wappingers Falls, N. Y., on the same terms, except as to prices. The prices in the Wappinger Falls contract were as follows:

	Per cwt.
April.	\$1 70
May.	1 40
June.	1 30
July.	1 70
August.	1 90
September.	1 90
October.	2 00
November.	2 00
December.	2 00
January.	1 90
February.	1 80
March.	1 80

In March, 1916, the O. A. Weatherly & Co., of Milford, Otsego county, issued the following contract proposition:

EXHIBIT NO. 146

MILK PRICES FOR 1916

O. A. Weatherly & Co. agree to pay the same as the Borden's schedule. No reduction below 3.3 per cent. butter fat and for all milk testing above 3.3 per cent. there is an addition of three cents for every one-tenth of one per cent. butter fat.

	3.3	3.4	3.5	3.6	3.7	3.8	3.9
April.	\$1.30	\$1.33	\$1.36	\$1.39	\$1.42	\$1.45	\$1.48
May.	1.05	1.08	1.11	1.14	1.17	1.20	1.23
June. . . . .	.99	1.02	1.05	1.08	1.11	1.14	1.17
July.	1.25	1.28	1.31	1.34	1.37	1.40	1.43
August.	1.41	1.44	1.47	1.50	1.53	1.56	1.59
September.	1.50	1.53	1.56	1.59	1.62	1.65	1.68

	4.0	4.1	4.2	4.3	4.4	4.5
April.	\$1.51	\$1.54	\$1.57	\$1.60	\$1.63	\$1.66
May.	1.26	1.29	1.32	1.35	1.38	1.41
June.	1.20	1.23	1.26	1.29	1.32	1.35
July.	1.46	1.49	1.52	1.55	1.58	1.61
August.	1.62	1.65	1.68	1.71	1.74	1.77
September.	1.71	1.74	1.77	1.80	1.83	1.86

All dairymen not scoring 25 per cent. on equipment and 43 per cent. on methods according to New York Department score card receive ten cents per hundred less.

If any of our patrons wish we will pay the same as the International Milk Products Company, of Cooperstown, N. Y.

Or we will go by the cheese prices for eight months if any of our patrons wish that way. We will allow 2.7 pounds of cheese for each pound of butter fat and pay the highest fancy New York quotations, less \$1.35 for each 100 pounds of cheese for making, but will not deduct any freight or commission. There will be no deduction on barn score where you take the last named proposition. Unless otherwise notified, we will pay by the Borden's schedule.

In September, 1915, the Harlem Dairy Products Company of Clinton, N. Y., issued the following contract or notice:

OFFICE OF HARLEM DAIRY PRODUCTS CO.,
Clinton.

Commencing October 1st and for six months thereafter, the Borden prices, together with the comparative prices per 100 pounds at 32-cent zone, will be as follows:

October.	\$1 70
November.	1 80
December.	1 80
January.	1 75
February.	1 65
March	1 60

October.	\$1 80
November.	1 90
December.	1 90
January.	1 85
February.	1 75
March.	1 70

Average, \$1.81 2/3 per 100 pounds.

All night's milk must be clean and cooled below 60 degrees when delivered to creamery, and all morning's milk can be delivered within two hours after milking and if it is not delivered within that time, it must be cooled the same as night milk. All barns must be kept clean to pass inspection of the Health Department of New York.

HARLEM DAIRY PRODUCTS CO.,
Clinton, N. Y.

The same company on April 1, 1915, issued the following card:
Prices for the next six months as follows:

	Per 100 pounds
April.	\$1 40
May.	1 15
June.	1 10
July.	1 25
August.	1 40
September.	1 80

NOTE BY COMMITTEE.—It will be observed from the Borden contract above that the comparative figures used on the above card were about two cents a hundred pound under the Borden price for 3.4 milk, and that the Harlem Dairy Products Company were four cents a hundred pound under the Borden price for 3.8 milk. 3.8 milk would be a low average for the winter season.

FORT PLAIN MILK COMPANY

The Fort Plain Milk Company, a co-operative company, in March, 1916, issued the following contract:

FORT PLAIN MILK COMPANY

The following prices for the coming six months commencing April 1st, 1916:

	Per cwt.
April.	\$1 30
May.	1 10
June.	1 05
July.	1 20
August.	1 35
September.	1 45

NOTE BY COMMITTEE.—This price, as published by this company through the six months, was about ten cents less than the Borden price for 3.3 milk.

The same company for 1915 issued the following card:

FORT PLAIN MILK COMPANY

The following prices for the coming six months commencing April 1st, 1915:

	Per cwt.
April.	\$1 25
May.	1 00
June.	1 00
July.	1 10
August.	1 25
September.	1 35
October.	1 75
November.	1 80
December.	1 80
1916 January.	1 80
February.	1 70
March.	1 60

This company has several outlying stations where milk is collected.

The Fort Plain Milk Company is a co-operative company, that is, one owned and operated by dairymen. Undoubtedly, these are as injurious milk prices as appear in the records of this Committee; that is, injurious to the milk producer. The stock is largely owned by dairymen and the charge was made at the hearings of this Committee that the men who owned the farm owned the stock in the company; that a great many of the farms were worked on shares by tenant farmers; by paying such low prices for milk, the tenant farmer was wronged while the owners of the stock got large returns by way of dividends. It was admitted by the oper-

ators of the company at the hearing before the Committee that during 1915 and 1916 the stock had earned over 50 per cent profit, which, of course, was to the benefit of all the stockholders, but to the great injury of tenant farmers who owned no stock, but delivered their milk to this company. It was shown that a large part of this milk was being sold at comparatively high prices to Messrs. Brown and Bailey at Canajoharie, N. Y. That a dairymen's plant does not always do justice to all its patrons would appear to be established by this case. Assume that the owner of the farm stipulates in his contract with the tenant that the milk must be delivered to the co-operative station. The tenant has no remedy but to carry out his contract. He owns no stock in the company, or presumably owns none, as he is not frequently located for a long period of time in a particular neighborhood. A comparison of the prices paid by the Fort Plain Milk Company with those paid by the Farmers' Co-operative Milk Company of Poughkeepsie, show a remarkable difference.

	Fort Plain Milk Co. prices	Farmers' Co-operative Co. at Wappingers Falls
April.	\$1 30	\$1 70
May.	1 10	1 40
June.	1 05	1 30
July.	1 20	1 70
August.	1 35	1 90
September.	1 45	1 90

The difference in location of these two companies will not explain the difference in milk values paid. The International Milk Products Company of Cooperstown, N. Y., during 1915 paid the following:

	Price	Test
January.	\$1.95	4.15
February.	1.75	3.6
March.	1.70	3.5
April.	1.35	3.3
May.	1.19	3.7
June.	1.11	3.6
July.	1.27½	3.65
August.	1.51½	3.9
September.	1.61½	3.95
October.	1.91½	4.05
November.	2.13½	4.45
December.	2.12	4.4

1916.

January.	\$1.93	4.1
February.	1.74½	3.65
March.	1.68	3.6
April.	1.52	3.7
May.	1.45	4.3
June.	1.42	4.2
July.	1.31	3.5

NOTE.—The above prices taken from the statements of one patron.

On October 15, 1915, the O. E. Weatherly Company issued the following contract:

EXHIBIT NO. 147

MILFORD, N. Y., October 15th, 1915.

To our Patrons:

Several of our patrons have asked us what the prices were going to be for the next six months, and would say they will be the same as the Bordens for the same quality of milk and same to be delivered according to the regulations of the New York Department of Health.

Following are the Borden prices:

October, 1915.	Grade B 4%	per hundred, \$1.90	Grade C \$1.80
November, 1915.	Grade B 4%	per hundred, 2.00	Grade C 1.90
December, 1915.	Grade B 4%	per hundred, 2.00	Grade C 1.90
January, 1916.	Grade B 4%	per hundred, 1.90	Grade C 1.80
February, 1916	Grade B 4%	per hundred, 1.85	Grade C 1.75
March, 1916.	Grade B 4%	per hundred, 1.80	Grade C 1.70

For all milk testing under four per cent. there will be a reduction of three cents for every one-tenth of one per cent. butter fat and for all milk testing over four per cent. there will be an addition of three cents for every one-tenth of one per cent. butter fat.

The New York Department of Health regulations are this, to have the milk Grade B the barn must score at least 68 points, 43 on methods and 25 on equipment, and Grade C must score at least 40 points. All milk must be cooled to at least 60 per cent. unless delivered before 8 a. m.

On March 23, 1915, we received notice from the Department as follows: "That no milk be accepted at a temperature higher than 60 per cent. During the inspection on March 15th, the morning's milk was taken in at an average of 70 per cent as late as 9:45 a. m. If at the re-inspection it is found that any uncooled morning's milk is received later than 8 a. m. the dairy producing same will be ordered excluded at once. These recommendations must have your attention."

Since that date there has not been any inspection when they have taken the temperature of the milk. It may be some time before they do and they may do it in the near future. You will note if they do there will be several dairies that will not come up to these requirements and if they are strict about the matter they will have to be excluded until the milk is cooled as directed. We would certainly recommend your cooling it as much as possible at least getting the animal heat out of the milk. We are not mentioning these matters to find fault, but to have you prepared so there will be no trouble when there is a re-inspection. We certainly do not wish to have any of our patrons

excluded from shipping their milk, but if we should continue to take this milk after we had received instruction not to ship same, we would not be allowed to ship any milk to New York City. So would have to stop taking the milk from the patrons upon re-inspections that were ordered stopped by the Department.

This is beyond our jurisdiction when we are shipping and it would not be possible to pay the above prices, as you all know, and manufacture the milk into either butter or cheese. In the near future there will be a re-inspection of your barns and as found when inspected the prices will be according, that is, whether the score is such that it will be either grade B or grade C.

Don't you think it would be a good plan to commence to make plans to put up a milk house and also a house to store a little ice this winter? The expense would not be very much and you would certainly appreciate the ice next summer when it was hot and you needed to cool your milk. The cost of the ice would practically be small for you could do that at odd times when there would not be much other work. Thanking you for past favors, and patronage and trusting we merit the continuance of same, we remain,

Very truly yours,

(Signed) O. A. WEATHERLY & Co.

In 1916, month to month, the Model Dairy Company posted the following prices at the station at Greenway, Oneida county, per 100 pounds:

January	\$1.80
February	1.75
March	1.65
April	1.50
May, 1st half	1.30
May, 2nd half	1.40
June, 1st half	1.20
June, 2nd half	1.30
July, 1st half	1.30
July, 2nd half	1.40

STANDARD DAIRY COMPANY,
611-613 East 12th St.

Sauquoit.

NEW YORK, April 1, 1916.

The price of milk at this station for grade B is \$1.25 per can.

W. F. BIRD,
President.

Sauquoit.

NEW YORK, May 1, 1916.

The price of milk at this station is \$1.12 per can of 40 quarts, grade B.

W. F. BIRD,
President.

Sauquoit.

June 1, 1916.

The price of milk at this station is \$1.05 per can of 40 quarts, per grade B.

W. F. BIRD,
President.

Sauquoit.

July 1, 1916.

The price of milk at this station is \$1.15 per can of 40 quarts, grade B.

W. F. BIRD,
President.*Sauquoit.*

NEW YORK, August 1, 1916.

The price of milk at this station is \$1.28 per can for 40 quarts, grade B.

W. F. BIRD,
President.*Sauquoit.*

November 1, 1916.

The price of milk at this station is \$1.50 per can for 40 quarts of grade B.

W. F. BIRD,
President.*Sauquoit.*

NEW YORK, October 1, 1915.

The price of milk at this station is \$1.40 per can of 40 quarts, grade B.

W. F. BIRD,
President.*Sauquoit.*

NEW YORK, September 1st.

The price of milk at this station is \$1.23 per can of 40 quarts, grade B.

W. F. BIRD,
President.

August 1, 1915.

The price of milk at this station is \$1.15 per can of 40 quarts, grade B.

W. F. BIRD,
President.*Sauquoit.*

July 1, 1915.

The price of milk is \$1.05 per can of 40 quarts, grade B.

STANDARD DAIRY COMPANY,

W. F. BIRD,
President.

June 1, 1915.

The price of milk at this station is \$.96 per can of 40 quarts, grade B.

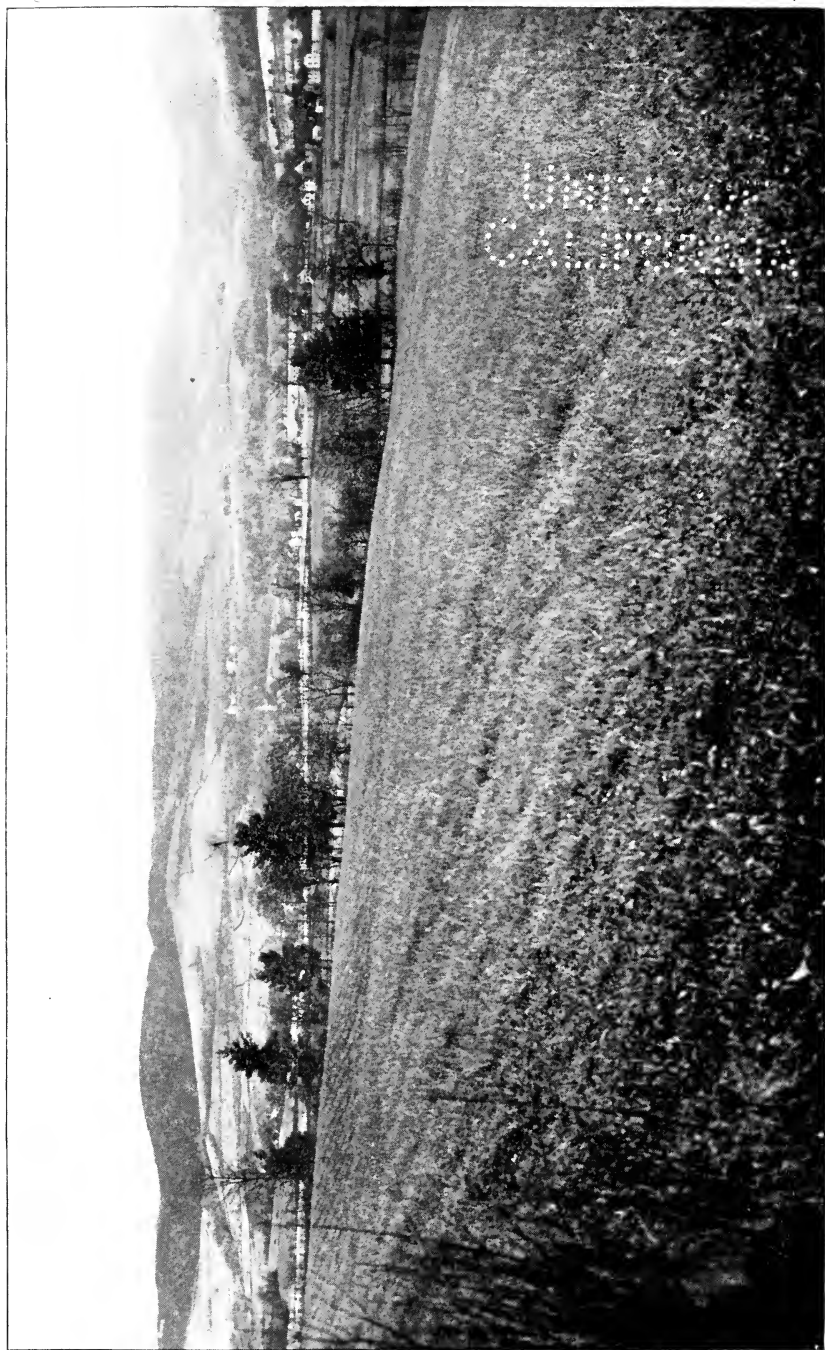
W. F. BIRD,
President.*Sauquoit.*

May 1, 1915.

The price of milk at this station is \$1 per can for grade B milk testing from 3.3 to 3.6 butter fat. Five cents less will be paid for every point below 3.3, and 3 cents additional for every point above.

W. F. BIRD,
President.*Sauquoit.*

April 1, 1915.



New York State is blessed with a diversity of scenery

The price of milk at this station is \$1.15 per can of 40 quarts for grade B. An addition of 3 cents per can will be paid for each point above 3.6 butter fat and 3 cents will be deducted from above price for each point below 3.3 butter fat. Tests will be counted on monthly average and the Babcock Tester.

STANDARD DAIRY COMPANY,

W. F. BIRD,
President.

NEW YORK, March 1, 1915.

The price of milk is \$1.44 per can of 40 quarts for grade B and 5 cents less for grade C.

W. F. BIRD,
President.

Sauquoit

February 1, 1915.

The price of milk at this station is \$1.48 per can of 40 quarts delivered, for grade B.

W. F. BIRD,
President.

Sauquoit

January 1, 1915.

The price of milk at this station is \$1.56 per can of 40 cents for grade B.

W. F. BIRD,
President.

PRICES PAID TO PATRONS AT BEAKE'S DAIRY AT MASSENA, N. Y.,
FROM APRIL 1, 1915, TO APRIL 1, 1916, PER 100 POUNDS OF MILK.

1915

April	\$1.45
May	1.25
June	1.20
July	1.20
August	1.30
September	1.40
October	1.40
November	1.65
December	1.75

1916

January	1.85
February, 1-15th	1.85
February, 16-31	1.75
March	1.65
April	1.50
May	1.30
June	1.20
July	1.30
August	1.45

(Committee Exhibit No. 104.)

This station received about 225 dairies, average 1,200,000 pounds per month. The average monthly price for the year was about \$1.48.

F. X. Baumert & Company is a large concern engaged in the manufacturing of special brands of cheese at Antwerp, Jefferson county, N. Y. The industry is one of value to the dairymen of northern New York. The company manufactures many brands of cheese.

EXHIBIT No. 90

SUMMER MILK CONTRACT 1916

By and between the Patrons Delivering Milk at the Baumert Factory and F. X. Baumert & Co.

From and after the 1st day of April, 1916, and until the 30th day of September, 1916, F. X. Baumert & Co., will accept and receive all milk delivered at their factory in the village of Antwerp, N. Y., suitable for the purpose of manufacture in said factory, subject to the conditions following, and to the rules and regulations printed on the back hereof, for which they will pay at the rates and prices in the manner following, to wit:

For all milk so delivered and accepted at said factory during the month of:

April	\$1.40 for all milk testing 3.4 per cent. butter fat
May	1.40 for all milk testing 3.4 per cent. butter fat
June	1.40 for all milk testing 3.4 per cent. butter fat
July	1.40 for all milk testing 3.4 per cent. butter fat
August	1.50 for all milk testing 3.4 per cent. butter fat
Sept.	1.60 for all milk testing 3.6 per cent. butter fat

A deduction of 3 cents per hundred pounds will be made for each one-tenth of one percent. of all milk, delivered and accepted during each month, testing below the butter fat standard fixed in the monthly schedule of prices mentioned above.

An increase of three cents per 100 pounds will be made for each one-tenth of one per cent. of all milk, delivered and accepted during each month, testing above the butter fat standard fixed in the monthly schedule of prices mentioned above.

Payments for all milk delivered and accepted under this contract shall be made monthly, on the 15th day of the month, following the month of delivery excepting when the 15th day of either of said months shall fall on Sunday, or a legal holiday, in which case payment shall be made on the day following.

In case of the destruction of, or injury to the buildings or the machinery or apparatus therein, by fire, accident or otherwise, or if for any other cause, the manufacture of butter or cheese therein is interrupted or suspended, said F. X. Baumert & Co. shall not be required to receive or accept or pay for any milk for such reasonable time as may be necessary to enable them to provide or prepare a suitable place or places for such purpose.

The delivery of milk under these propositions and agreement at any time from and after the first day of April, 1916, shall be deemed an acceptance of said propositions and agreement in their entirety, and such propositions and agreement shall bind any person so delivering to deliver all the milk from his or her dairy until the termination of the term of six months as herein stipulated.

Dated, Antwerp, N. Y., March 25, 1916.

Rules and Regulations

No. 1. All milk delivered must conform to the conditions required by the laws of the State of New York.

No. 2. All milk must be thoroughly aerated and cooled with ice water or running spring water by the use of the Champion or Perfection aerator.

No. 3. All milk must be cooled to 70 degrees Fahrenheit during milking or immediately thereafter.

No. 4. Great care must be taken to aerate the milk in a place where the air is fresh and untainted and all milk must be properly strained through a cloth strainer. The cloth strainer must be kept scrupulously clean and must smell sweet. All cloth strainers, pails, dippers, cans and other utensils should be rinsed first with lukewarm water, and then with boiling water, but after scalding no utensils should be wiped with a dirty rag.

No. 5. All milking must be done in a manner as cleanly as possible, and great care taken to prevent any manure, dirt or other impurities, falling into the pail while milking, and after milking. Each pail of milk must as soon as drawn from the cow, be taken from the cow barn and placed in the aerator.

No. 6. Due care must be taken to prevent rain water from entering and mixing with the milk. A milk shed must be provided, to shelter all aerators and milk cans from the rain. All milk sheds or milk houses must be screened to prevent fowls, cats, or other animals from coming in contact with the milk.

No. 7. All milk must be of standard quality and must be delivered at a seasonable hour in the morning. The night and morning's milk must be kept separate and the night's milk must be unloaded first.

No. 8. All milk must be hauled on a spring wagon, but no wagon must be used in hauling milk that is used for hauling manure or other refuse.

No. 9. All cans that are used for the delivery of milk shall be in good condition and free from rust and be thoroughly cleansed as soon as possible after delivery of milk at the factory.

No. 10. The suggestions of the Inspector in regard to the manner and place of keeping milk must be followed.

No. 11. All stables in which cows are kept or milk, must be ventilated and kept as clean as practicable, but no litter should be disturbed immediately before or during milking.

No. 12. The cows of the dairy should not be permitted to drink stagnant water, nor shall they be fed any turnips, potatoes or other objectionable food, tending to impart a disagreeable flavor to the milk, or otherwise impair its quality.

No. 13. No cows should be fed any kind of feed immediately before or during milking—in a word, no dust or other kind of breeding germs should be set in motion immediately before or during milking.

N. B.—All cloth strainers for straining milk will be cheerfully furnished on application at the factory whenever required.

The winter milk contract of 1915 and 1916 was the same in form, except as to prices, which were as follows:

	Price	Test
October	\$1 70	3.6
November	1 95	3.6
December	1 95	3.6
January	1 90	3.6
February	1 70	3.5
March	1 60	3.4

The summer milk contract of 1915 of this company was substantially the same, except for prices, which were as follows:

	Price	Test
April	\$1 30	3.4
May	1 20	3.4
June	1 20	3.4
July	1 25	3.4
August	1 30	3.4
September	1 50	3.6

The Committee obtained statements made by the Beake's Dairy Company to a patron of the Beake's station at Franklin, Delaware county, covering the period July 1, 1915, to June 30, 1916. They are marked as Exhibit 77 and show the following prices paid at that point.

1915		
	Price per cwt.	Test
July	\$1 33	3.9
August	1 46	3.8
September	1 61	4.0
October	1 96	4.2
November	1 88	3.6
December	1 94	3.8

1916		
January	\$1 84	3.8
February	1 82	3.6
March	1 68	3.6
April	1 43	3.4
May	1 30	3.8
June	1 14	3.8

The 1916 contract of Sheffield Farms, Slawson-Decker Company, at Richmondville, N. Y., gave the following prices:

April	\$1 60	Advanced in check to	\$1 70
May	1 30	Advanced in check to	1 40
June	1 30	Advanced in check to	1 40
July	1 50		
August	1 65		
September	1 70		

The contract for September, 1915, of the Slawson-Decker Company at Richmondville, carried the following prices:

October.	\$2 05
November	2 10
December	2 10
January.	2 05
February.	1 95
March.	1 90

The prices paid at West Danby shipping station of R. H. Stevens Company for grade B milk from January 1, 1915, to July, 1916, as testified to before the Committee, were as follows:

1915

Price per can of 40 quarts

January.	\$1 55
February.	1 45
March.	1 35
April.	1 10
May.	1 00
June.	1 00
July.	1 10
August.	1 20
September.	1 35
October.	1 50
November.	1 70
December.	1 70

1916

January.	\$1 60
February.	1 60
March.	1 60
April.	1 50
May.	1 30
June.	1 10
July.	1 20

NOTE.—These are for 40 quart cans of milk which are expected to average 85 pounds of milk per can, and must be distinguished from the prices per hundred weight.

The Clover-Dale Farms Company of the city of Binghamton in April, 1915, issued the following contract:

EXHIBIT NO. 25

CLOVER-DALE FARMS COMPANY CONTRACT

Each of the undersigned, signing for himself only, agree to sell and deliver in good condition to the Clover-Dale Farms Company and assigns, at its creamery building in the city of Binghamton, as early in the morning as 8 o'clock in summer and 9 o'clock in winter, once daily, transporting the same by spring wagon, having the cans covered with canvass, all the milk produced by this individual dairy from April 1, 1915, to April 1, 1916, which

milk shall be pure, sweet, clean, free from odor, not having been frozen, of a temperature not exceeding 60 degrees F. when delivered at such creamery and shall comply with the requirements hereinafter contained, and shall average for the year at least 4 per cent of butter fat.

Each of the parties hereto agrees not to mix from night's and morning's milkings; to carefully strain the milk through fine wire strainers, having at least 100 meshes to the inch; to keep pails and strainers clean, and to thoroughly wash the same in lukewarm water and thereafter scald the same night and morning; to keep the cow stable clean, amply lighted and ventilated, removing all manure therefrom daily; and to use no foul material for bedding; to keep the cows clean; to provide a milk house in which to cool and store all milk and keep same in a clean and sanitary condition at all times; to reduce all milk to a temperature of 55 degrees F. within three-quarters of an hour after milking, and to maintain such temperature by placing the cans in fresh water at that or a lower temperature, using all the ice which may be necessary for that purpose, until taken from the water for delivery to the Company; to allow his cattle no food which is not good and wholesome, nor any water which is not fresh and pure; to deliver no milk from a cow not in perfect health, or 40 days before or 6 days after coming in; to at all times allow the veterinary and other representatives of the Clover-Dale Farms Company to inspect his stables, cows, food and water supply; to promptly report to the company any contagious disease which may exist in his family or on his farm, and to observe all laws, regulations and ordinances of the city of Binghamton and State of New York relative to cattle and milk, to which laws, regulations and ordinances any obligations of the Clover-Dale Farms Company to receive the milk shall at all times be subject.

The Clover-Dale Farms Company agrees to buy and pay for such milk so delivered, so long during the year as the producer continues to observe and perform all the foregoing provisions to be observed and performed by him, and such laws, regulations or ordinances do not forbid the receipt of such milk, the following prices per hundred pounds for grade C milk as graded by New York State Board of Health score card:

April	\$1 50	August	\$1 55	December ..	\$2 05
May	1 20	September	1 80	January	1 95
June	1 10	October	1 95	February	1 80
July	1 30	November	2 05	March	1 75

payable on the 10th day of each month for the milk delivered during the preceding month, and also agrees free of charge to wash and steam the cans at the creamery.

The Company agrees to pay the farmer for all his milk furnished during such time as his scoring shall stand grade B as scored by New York State Board of Health score card, the additional sum of 10 cents per 100 pounds.

Also an additional 10 cents per 100 pounds for all milk having an average butter fat test of 4.5 per cent butter fat.

The Company agrees to whitewash the cow stables of the farmer free of expense to him, upon the condition that he shall have his stable in such condition of cleanliness as the company may require at such times as the Com-

pany shall fix for whitewashing on ten days' notice to the farmer; and upon the further condition that the farmer shall furnish a suitable man to work the spray pump during the process of applying the whitewash.

CLOVER-DALE FARMS CO.

Per JOHNSON,

The Chemung Dairy Products Company at Big Flats, in the spring of 1915, issued the following contract:

To our Patrons:

Owing to the general depression in the milk market it is necessary for us to cut the prices paid last year for milk. The depression affects all milk products. Our prices averaged a little better than 10 cents per hundred pounds above Borden's prices for this zone. They are as follows:

	Price per 100 lbs.
April.	\$1 40
May	1 27
June.	1 05
July.	1 27
August	1 51
September.	1 63
October.	1 63
November.	1 76
December.	1 86
1916 January.	1 76
February	1 71
March.	1 66

Ten cents per hundred pounds is added for milk testing 4 per cent butter fat, or better.

CHEMUNG DAIRY PRODUCTS CO.

(Committee Exhibit No. 19.)

COMMITTEE EXHIBIT 17

HORSEHEADS CREAMERY COMPANY

Producers and Shippers of High Grade Cream Contents
and Evaporated Milk; Manufacturers of
Fancy Butter

HORSEHEADS, N. Y., November 20, 1913.

We beg to submit the following prices per 100 pounds (47 quarts to the 100 lbs.) for milk for the winter season 1913-1914, delivered at our plant, viz:

December.	\$2 00
January.	1 90
February.	1 80
March.	1 65

Or you can take the test plan, same as usual.

Where the butter basis is taken, the price of milk will remain the same as in the past. Where the stated price is taken the price for milk will be 10 cents per 100 pounds. You should advise us of your choice of the above plans on or before December 1, 1913.

November 20, 1914, the Horseheads Creamery Company issued the same notice of contract, with the exception of prices which were as follows (Exhibit 17):

December	\$1 85
January	1 75
February.	1 65
March.	1 55

November 20, 1915, the company issued the same notice or contract, with the exception of prices.

For milk for the winter season, 1915-16, delivered at our plant, viz.:

Month.	
December.	\$1 90
January	1 80
February	1 70
March.	1 60

On March 25, 1916, the Horseheads Creamery Company issued the following notice or contract (Exhibit 14):

EXHIBIT NO. 14

HORSEHEADS, N. Y., March 25, 1916.

To our Patrons:

We beg to submit the following prices per 100 lbs. (47 quarts to the 100 lbs.) for milk for the summer season 1916, delivered at our plant, viz.: For the month of April, \$1.35; May, \$1.10; June, \$1.05; July, \$1.25; August, \$1.40; September, \$1.50; October, \$1.65; November, \$1.75; and also an additional premium of 10 cents per 100 lbs. for all milk testing 4 per cent butter fat or better. Or you can take the butter basis on the test plan as usual.

Prices for milk hauling and skim milk will remain the same as in the past. In addition we wish to state that we do not require any barn or dairy inspection. No aerated or ice cooled milk — just plain, unadulterated, clean milk.

You should advise us of your choice of the above plans on or before April 10th, 1916.

HORSEHEADS CREAMERY CO.

On May 1, 1916, the Levy Dairy Company issued the following statement:

LEVY DAIRY COMPANY

NEW YORK, May 1, 1916.

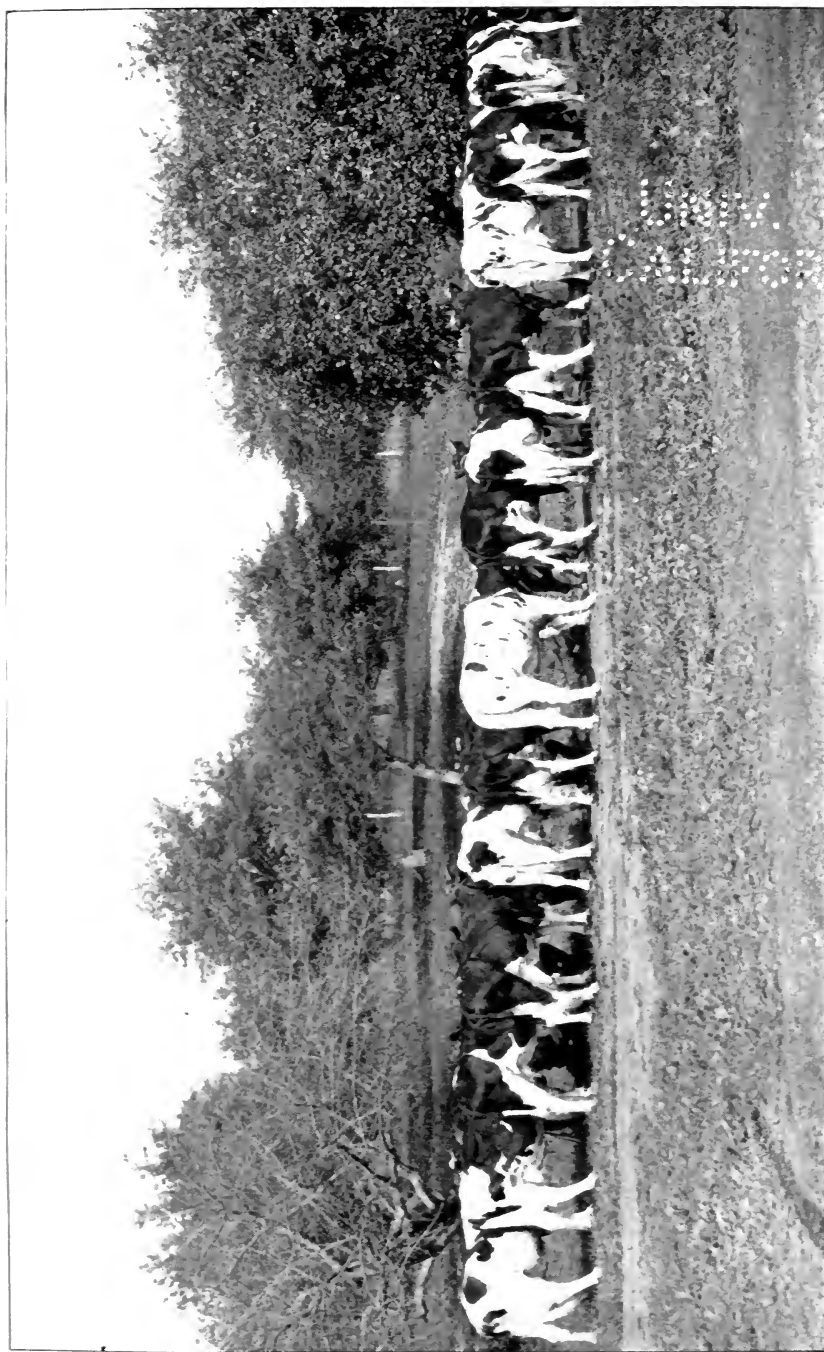
Mr. C. F. WOLF, Bartlett, N. Y.:

Dear Sir.—Commencing May 1, 1916, we will pay for all milk delivered to the above station as follows until further notice: \$1.24 per cwt.

Yours truly,

LEVY DAIRY COMPANY,

By W. A. CAMPBELL.



The only herd of its kind in the world all 30 pounds or better. The herd is owned by the Lawson Fanning Company of LaGrangeville, N. Y. The picture shows but a portion of the remarkable herd, every cow of which has a record of 30 pounds of butter or better in seven days. It is headed by the famous \$50,000 bull, King Seg's Pontiac Alcatraz.

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1981 1981

This was promptly followed by another letter:

NEW YORK, *May 1, 1916.*

Mr. C. F. WOLF, *Bartlett, N. Y.:*

Dear Sir.—You may inform the patrons at your station that we will meet the ten cent advance in Borden's prices. Unfortunately, the checks for the first half of April are already made out, so that we will put the extra ten cents for the first half on the checks for the second half.

Yours truly,

LEVY DAIRY COMPANY.

June 1st, the following was issued:

NEW YORK, *June 1, 1916.*

Mr. C. F. WOLF, *Bartlett, N. Y.:*

Dear Sir.—Commencing June 1, 1916, we will pay for all milk delivered to the above station as follows until further ordered, "Borden's 3.6 prices."

Yours truly,

LEVY DAIRY COMPANY.

LEVY DAIRY COMPANY

MILK AND CREAM

NEW YORK, *July 1, 1916.*

Mr. JAMES J. SEALS, *Bartlett, N. Y.:*

Dear Sir.—Commencing July 1, 1916, we will pay for all milk delivered to the above station as follows until further notice: \$1.34 per cwt.

Yours truly,

LEVY DAIRY COMPANY.

This was followed by a letter of July 11th:

LEVY DAIRY COMPANY

MILK AND CREAM

19th Street and Avenue B

NEW YORK CITY, *July 11, 1916.*

Mr. J. J. SEALS, *Bartlett, N. Y.:*

Dear Sir.—With reference to 10 cent increase for the month of June, the writer cannot say what action Mr. Levy will take in this matter as he is out of town at present, but I believe he will meet Borden's increase for this month. Kindly ask the patrons to defer this matter until the checks for the second half arrive at the station.

Yours truly,

LEVY DAIRY COMPANY.

This was followed by a letter of July 31, 1916:

LEVY DAIRY COMPANY

MILK AND CREAM

NEW YORK, *July 31, 1916.*

JAMES J. SEALS, *Bartlett, N. Y.:*

Dear Sir.—Commencing August 1, 1916, we will pay for all milk delivered to the above station as follows until further notice: \$1.50 per cwt.

Yours very truly,

LEVY DAIRY COMPANY.

The form of contract used by the Geneva Milk Company for the purchase of milk in the spring of 1916 is as follows:

MEMORANDUM OF AGREEMENT INTO, this day of 1916, between of Geneva, N. Y., party of the first part, hereinafter termed the Producer, and the GENEVA MILK COMPANY, party of the second part, hereinafter known as the Company.

WITNESSETH: The Producer for himself and not for others, for and in consideration of the sum of ONE DOLLAR to in hand paid, the receipt of which is hereby acknowledged, agrees to furnish the Company what milk may produce from.....cows, from the first day of April, 1917; delivery of said milk to be made to the Company, at its place of business, not later than A. M. each day during April, May, June, July, August and September and not later than A. M. each day during the remainder of the year above mentioned.

IT IS AGREED, that the milk supplied by the Producer shall be reasonably free from sediment; without taint, sweet, unadulterated and contain at least 3.8 per cent. butter fat, except as hereinafter provided; such butter content to be determined by Babcock Test of samples taken by the Company, duplicates of which samples will be retained for the Producer at his request.

Should milk, produced under this Contract, test under 3 8/10 per cent. in butter fat, the Producer agrees to allow a deduction by the Company of 1/10 of a cent per quart for each 1/10 of a point that the milk tests under 3 8/10 per cent. No deductions are to be made, however, on a basis of less than four tests on four different days in one month.

The Producer agrees to give the Company the right to inspect his premises for the purpose of ascertaining under what conditions above milk is produced.

The Producer further agrees to notify the Company at once in the event of any illness from any infectious or contagious disease of any of the members of his household, or that of his help, during the life of this Contract. In the event of any of said milk being condemned by the Geneva City Board of Health, the Company shall at once be relieved from obligation to take said milk under this contract until said supply is approved by the said Board of Health; it being agreed that the milk is to be produced according to the requirements of the Geneva Board of Health.

IT IS UNDERSTOOD AND AGREED, that in the event of the producer purchasing skim milk from the Company at any time, that said skim milk is sold without any implied warranty as to being free from germs of any sort and the producer assumes all risk.

IT IS MUTUALLY AGREED AND UNDERSTOOD, that should any interruption occur in the conduct of the Company's business, due to conditions beyond its control, it shall at once notify the Producer and shall be released from any obligation to take milk from its producer during said interruption.

The Company agrees to pay on the 6th of the succeeding month for milk delivered under this contract at the following prices per quart for the different months:

	Good	Medium	Poor
April.....	\$.036	\$.031	\$.025
May.....	.036	.031	.025
June.....	.036	.031	.025
July.....	.039	.033	.03
August.....	.042	.036	.03
September.....	.047	.041	.035
October.....	.047	.041	.035
November.....	.047	.041	.035
December.....	.046	.04	.035
January.....	.04	.035	.03
February.....	.04	.034	.03
March.....	.036	.032	.025

IT IS MUTUALLY UNDERSTOOD AND AGREED, that the grade of milk delivered under this contract shall be determined by bacteriological tests as made by representatives of the New York State Experiment Station. It being understood that the average rating given monthly by the Experiment Station shall determine the price to be paid for milk delivered for the month per the above schedule.

In Witness Whereof, the parties hereto have set their hands and seals, the day and year first above written.

.....(L. S.)

GENEVA MILK COMPANY,

By.....

The Brighton Place Dairy Company, a prosperous Rochester concern, in the spring of 1916 issued and required the following contracts:

MILK CONTRACT

BRIGHTON PLACE DAIRY COMPANY

MEMORANDUM OF AGREEMENT entered into this.....day of....., 1916, between the Brighton Place Dairy Company, of Rochester, N. Y., party of the first part and.....of.....N. Y., party of the second part.

WITNESSETH: the party of the second part for..... and not for others, for and in consideration of the sum of one dollar the receipt of which is hereby acknowledged and amounts hereinafter named, to be paid by the party of the first part, hereby agrees to sell and deliver, F. O. B. Brighton Station, Rochester, N. Y., the number of pounds estimated (as specified below) of pure, sweet unadulterated milk produced from.....individual dairy or dairies.

It is further agreed and understood that all milk shall be delivered at time designated by the party of the first part.

It is further agreed and understood that the milk sold by the party of the second part shall be subject to the rules, regulations and approval of the Health Bureau of the City of Rochester, N. Y.

It is further agreed and understood that if any interruption in the conduct of the business, due to conditions beyond control of the party of the first part, shall arise they shall immediately notify the party of the second part, and

shall thereafter be under no obligations to receive milk from the party of the second part during the said period of interruption.

It is further agreed and understood that should any member of the family or servant thereof, of the party of the second part be taken sick with any infectious disease.....will immediately notify the party of the first part and discontinue delivering milk during said period of illness.

It is further agreed and understood that the party of the first part will pay an additional 3c per cwt. for each point above 3.8 per cent. butter fat, and deduct 3c per cwt. for each point below 3.8 per cent. butter fat from April 1st to Oct. 1st, 1916, and an additional 3c per cwt. for each point above 4 per cent. butter fat and deduct 3c per cwt. for each point below 4 per cent. butter fat from Oct. 1st, 1916 to April 1st, 1917.

NO VERBAL AGREEMENT WILL BE RECOGNIZED

It is further agreed and understood that the party of the first part is to pay on the twentieth day of each month, following delivery.

Number of cows.....

			Per cwt.
Daily average, April,	1916,	pounds, at.....	\$1 80
Daily average, May,	1916,	pounds, at.....	1 30
Daily average, June,	1916,	pounds, at.....	1 20
Daily average, July,	1916,	pounds, at.....	1 50
Daily average, August,	1916,	pounds, at.....	1 90
Daily average, September,	1916,	pounds, at.....	2 00
Daily average, October,	1916,	pounds, at.....	2 15
Daily average, November,	1916,	pounds, at.....	2 15
Daily average, December,	1916,	pounds, at.....	2 00
Daily average, January,	1917,	pounds, at.....	2 00
Daily average, February,	1917,	pounds, at.....	1 90
Daily average, March,	1917,	pounds, at.....	1 80

In Witness Whereof, the parties hereunto interchangeably set their hands, the day and year first above written.

BRIGHTON PLACE DAIRY CO.

By.....(L. S.)
.....(L. S.)

This company has a station at Metcalfe, N. Y., in the Rochester territory, where it issued the same contract. The prices for Metcalfe deliveries were as follows:

Number of cows.....

			Per cwt.
Daily average, April,	1916,	pounds, at.....	\$1 60
Daily average, May,	1916,	pounds, at.....	1 25
Daily average, June,	1916,	pounds, at.....	1 20
Daily average, July,	1916,	pounds, at.....	1 45
Daily average, August,	1916,	pounds, at.....	1 70
Daily average, September,	1916,	pounds, at.....	1 80
Daily average, October,	1916,	pounds, at.....	2 00
Daily average, November,	1916,	pounds, at.....	2 00
Daily average, December,	1916,	pounds, at.....	2 00
Daily average, January,	1917,	pounds, at.....	1 85
Daily average, February,	1917,	pounds, at.....	1 65
Daily average, March,	1917,	pounds, at.....	1 65

CONTRACT BETWEEN ROBERT HANNA, ESQ., OF GENESEO, N. Y., AND
THE BIG ELM DAIRY OF ROCHESTER, N. Y.

This agreement made and entered into this 22nd day of February, 1916, by and between Robert Hanna of Geneseo, N. Y., and the Big Elm Dairy Company of Rochester, N. Y., WITNESSETH:

That said Robert Hanna hereby agrees to furnish and deliver daily, F. O. B. Erie Railroad, Rochester, N. Y., 700 pounds, pure, sweet, aerated milk, from April 1, 1916, to April 1, 1917. The night milk to be properly cooled to 40 degrees Fahrenheit and all morning milk to be cooled to 45 degrees Fahrenheit, and plainly marked or tagged as such morning milk. The milk to be strained through at least four thicknesses of clean cheesecloth, which cloths are to be thoroughly cleaned with hot water every day. The barnyard, stables, milk room, all appurtenances and milk itself are all to be cared for in a manner which will be in every way satisfactory to the Board of Health of the city of Rochester and meet with the regulations thereof and of said city. Said Big Elm Dairy Company hereby agrees to pay the said Robert Hanna for milk so delivered \$1.86 per cwt. from April 1, 1916, to April 1, 1917. The milk shipped in excess of the quantity herein specified, or so-called surplus milk to be paid for at the rate of.....cents per hundred weight. Payments to be made monthly. All cans used in such delivery must on their return to the producer named therein be thoroughly cleaned, inverted and elevated from the ground or floor level in a clean place and rinsed with cold water before re-filling.

Witnesseth the hand and seals of the parties hereto the day and year first above written.

(Signed)

BIG ELM DAIRY COMPANY,
A. E. Wood, *President*

(Signed)

ROBERT HANNA.

Mr. Spiehler of the Big Elm Dairy Company, testified:

"The 700 pounds is only an approximate estimate of his dairy production daily. We take all he produces. We have an understanding to that effect. If he fell below 700 pounds we would write him a courteous letter asking him if he cannot put on more cows to live up to his contract. They usually co-operate with us. If they are obstinate about it, we make other arrangements to get milk elsewhere. Of course we have a cause of action against the producer but we never have pressed anything like that. These dairies are not tuberculin tested. If Mr. Hanna does not satisfy the Health Board of the city of Rochester, the bureau will notify him not to ship milk until his conditions are so improved that it comes up to the requirement. The \$1.86 rate has been in vogue here for the last five years, roughly speaking. We sell about 500 quarts of certified milk at 15 cents a quart. Rochester has something like 200 or 225 milk dealers. We pasteurize the milk at our plant in the city. We pay the same price as Avon. Of course, the producer pays the freight. This is about one-eighth."

In 1915 the Sheffield Farms, Slawson-Decker Company issued contract or notice as follows, at one of its stations at Franklinville, N. Y.:

Schedule of Prices

And summary of Contract of Sheffield Farms-Slawson-Decker Co. for coming six months, 1915.

Prices Per Hundred Pounds

April.....	\$1.40	July.....	\$1.40
May.....	1.25	Aug.....	1.40
June.....	1.20	Sept.....	1.50
	<u> </u>		<u> </u>

First. The first party agrees to pay in addition to stated prices 3c per point per hundred pounds for butter fat from 4 to 4.5 per cent. The first premium of 3c per hundred pounds to be paid for 4.1 per cent. milk, and the maximum premium of 15c per hundred pounds to be paid for milk testing 4.5 per cent. There will be a deduction of 3c per hundred pounds for each one-tenth per cent. below 3.8 per cent., the first deduction to be made for milk testing 3.7 per cent.

Second. The above tests are to be made on composite samples taken daily and tested three times a month. The average of these three tests each month to be the basis on which premiums are paid.

Third. The first party will pay a premium each month for all milk delivered to its plants at a temperature of 50 or below each and every day during the month of 5c per hundred pounds for the months of April, May, and June and 15c per hundred pounds for the months of July, August, and September.

Fourth. The first party will pay a premium of 10c per hundred to all producers who show a total score of 68 per cent. or over. This total score must consist of at least 43 per cent. on methods and 25 per cent. on equipment.

Fifth. Skim milk will be sold back to patrons at 15c per can of 40 quarts.

Sixth. The first party agrees to pay to second parties on or before the 15th of each month for such milk so delivered the preceding month and pay NOT LESS than the above prices for six months.

SHEFFIELD FARMS-SLAWSON-DECKER CO.

In the spring of 1916 the Sheffield Farms, Slawson-Decker Company at Franklinville, N. Y., issued the following statement:

SUMMARY OF CONTRACT OF SHEFFIELD FARMS-SLAWSON-DECKER CO. FOR COMING SIX MONTHS, 1916.

Prices Per Hundred Pounds

April.....	\$1.45	July.....	\$1.40
May.....	1.30	August.....	1.50
June.....	1.30	September.....	1.70
	<u> </u>		<u> </u>

First. The first party agrees to pay in addition to stated prices 3 cents a point per hundred pounds for butter fat from 3.8 to 4.5 per cent. There will be a deduction of 3 cents per hundred pounds for each one-tenth per cent. below 3.8 per cent.

Second. The above tests are to be made on composite samples taken daily and tested three times a month. The average of these three tests each month to be the basis on which the premiums are paid.

Third. The first party will pay a premium each month for all milk delivered to its plants at a temperature of 50 or below each and every day during the month of 5 cents per hundred pounds for the months of April, May and June, and 15 cents per hundred for the months of July, August and September.

Fourth. The first party will pay a premium of 10 cents per hundred pounds to all producers who show a total score of 68 per cent. or over. This total score must consist of at least 43 per cent. on methods and 25 per cent. on equipment.

Fifth. The first party will sell skim milk to second parties at 15 cents per can of 40 quarts but reserve the right during the months of August and September to stop making skim milk for sale, so that they may ship all their milk to New York.

Sixth. The first party agrees to pay to second parties on or before the 15th of each month for such milk so delivered the preceding month and pay not less than the above prices for April. The prices for May, June, July and August and September will be announced on the 20th day of the preceding months.

SHEFFIELD FARMS-SLAWSON-DECKER CO.

In September, 1916, the Sheffield Farms Company proposed the following contract at some of its stations for the winter contract, 1916-17. So far as this Committee knows, this contract never went into effect to any considerable extent as it was superseded by the contracts between the New York dealers and the Dairy-men's League. It is inserted here because of its interest upon the subject under discussion:

CHEESE BASIS.

MEMORANDUM OF AGREEMENT made this.....day of September, 1916, between Sheffield Farms-Slawson-Decker Company, a corporation organized under the laws of New York, party of the first part, hereinafter called the Company, and the undersigned producers of milk, at....., State of, severally, as parties of the second part, hereinafter called the Producers.

First. The Company agrees to buy from the Producers and the Producers, each for himself or herself, agrees to sell to the Company, all the good merchantable cow's milk he or she may produce from October 1, 1916, to April 1, 1917, and deliver it fresh, clean, sweet, of good flavor, satisfactory to the Company and to the Board of Health of the city of New York and the Agricultural Department of the State, at the creamery of the Company at this place, at such time and in such manner and condition as the Company may prescribe.

Second. The Company agrees to pay therefor a stated price, hereinafter set forth at the end hereof, and, in addition thereto, to pay as a premium for butter fat the sum of 3c per hundred pounds for each one-tenth of one per cent. from 3.8 per cent to 4.5 per cent, inclusive. The stated price is, however, also subject in like manner to a deduction of 3c per hundred pounds of milk

for all milk containing less than 3.8 per cent. of butter fat for each one-tenth per cent. under such figure.

Third. The test whereby the content of milk is ascertained for such purpose is to be made on composite samples taken daily and tested three times a month. The average of these three tests each month to be the basis on which such premiums or deductions are ascertained. Average tests will be fixed at the nearest 1/10 per cent. whether above or below.

Fourth. The Company will pay additional monthly premium for barn score as follows: 10c per hundred pounds to all milk producers who show a score equal to the barn score standard now in force, or as the same is hereafter amended, prescribed by the Department of Health of the city of New York, and which standard is now a minimum of 25 for equipment and 43 for methods, as such standard is in force during such monthly premium period.

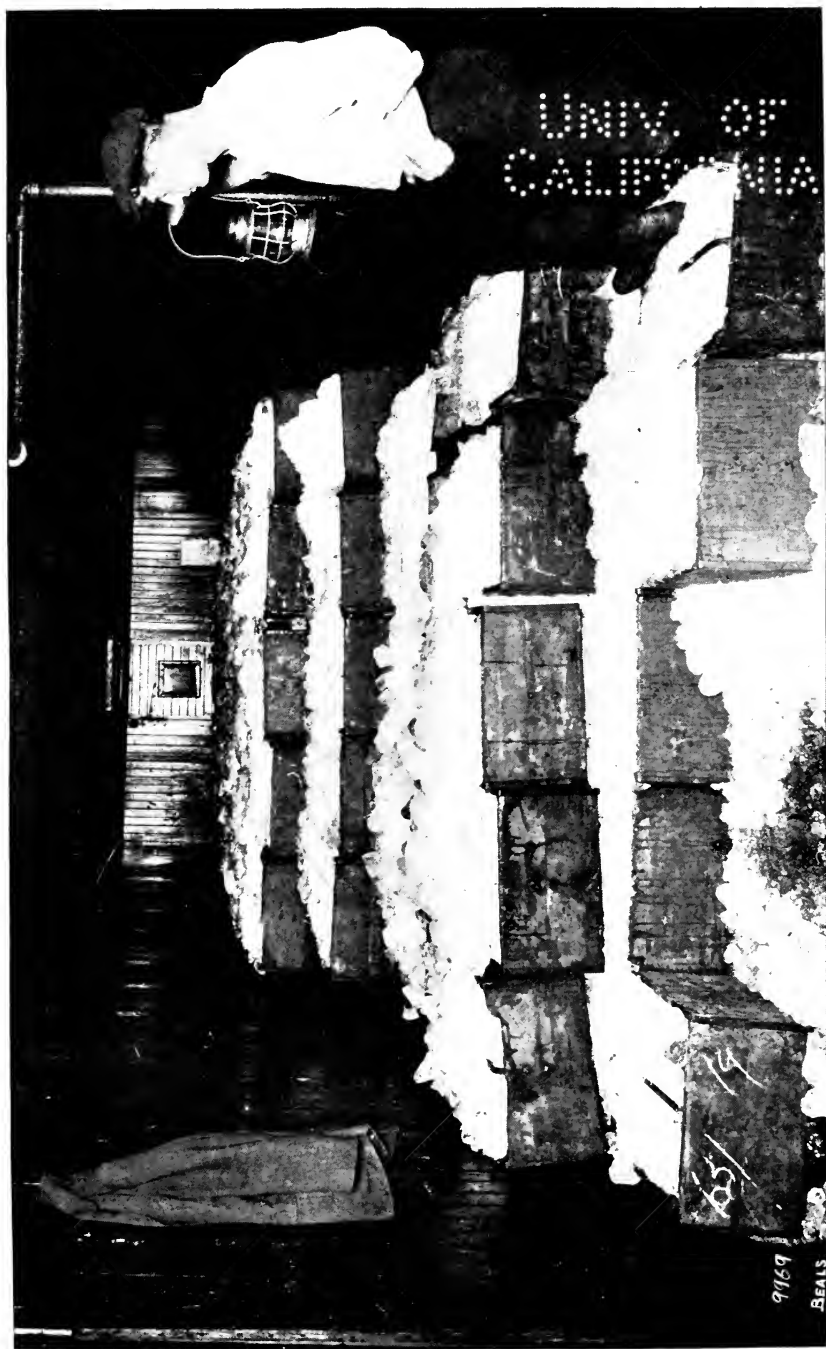
Fifth. The stated prices and premiums named herein are subject, however, to the following: If in any month or months the Company shall fail to sell as fluid milk all milk received by it in its entire business, and has a surplus of milk not so disposed of the producer shall receive for a portion of his or her milk a price based on the market price for cheese as follows:

Shortly after the end of each month a statement shall be posted by the Company at the creamery, showing what percentage of total milk received in the Company's business was disposed of as fluid milk. For such percentage of the milk of the producer he shall receive the stated price with premiums or deductions as herein stated. For the remainder of his milk for such month he shall receive and the Company will pay the highest average quotation for fresh average fancy colored cheese in the New York city market, as published in the Producers Price Current for the month, figured on the basis of 100 pounds of milk producing 10 pounds of cheese and less one cent (1c) per pound for manufacture.

All payments shall be made on the 15th of each month for all milk delivered in the preceding calendar month.

Sixth. It is mutually agreed between the parties as follows: That if the Company finds itself unable to operate its plant or prepare milk for shipment to New York by fire, accident, strikes, interruption of railroad transportation, or inability to secure necessary supplies, it shall post notice of that fact at the creamery and shall thereafter not be bound to continue the performance of this agreement while such conditions continue. It shall notify the Producers promptly upon the termination of such condition or conditions, and thereupon the obligation to deliver and receive milk shall re-commence. If the Producer on his part is unable to make deliveries to the Company because of action of public authorities, he or she shall be under no duty to supply milk to the Company on and after giving notice to the Company of such action, preventing the delivery of milk.

Except as above provided, this contract calls for continuous delivery by the Producers and continuous acceptance of milk by the Company during the contract period. The Company may cancel the contract in case adulterated, skimmed or contaminated milk is offered or delivered by the Producer to the Company's plant.



The proper method of icing for the transportation of milk is here shown

TO MRD
ABSENTEE

STATED PRICE

Prices given below are per hundred pounds of liquid milk:

October	2.05
November	2.05
December	2.05
January	2.00
February	2.00
March	1.90

Per cent butterfat.	3.	3.1	3.2	3.3	3.4	3.5	3.6	3.7
October.	1.81	1.84	1.87	1.90	1.93	1.96	1.99	2.02
November. . . . .	...	...	...	...	...	...	...	...
December. . . . .	...	...	...	...	...	...	...	...
January.	1.76	1.79	1.82	1.85	1.88	1.91	1.94	1.97
February. . . . .	...	...	...	...	...	...	...	...
March.	1.66	1.69	1.72	1.75	1.78	1.81	1.84	1.87

Per cent butterfat.	3.8	3.9	4.	4.1	4.2	4.3	4.4	4.5
October.	2.05	2.08	2.11	2.14	2.17	2.20	2.23	2.26
November.	2.05	...	...	...	...	...	...	...
December.	2.05	...	...	...	...	...	...	...
January.	2.00	2.03	2.06	2.09	2.12	2.15	2.18	2.21
February.	2.00	...	...	...	...	...	...	...
March.	1.90	1.93	1.96	1.99	2.02	2.05	2.08	2.11

*Example Demonstrating Working of Manufacturing Clause in Contract
Cheese Basis*

Company sold 90 per cent. of its total milk receipts as fluid milk. A patron's total production for the month was 10,000 pounds milk. He would be paid as follows: For 90 per cent of his milk, or 9,000 pounds, he would receive stated price with premium or deduction as stated in contract. For ten per cent. of his milk, or the balance of 1,000 pounds, he would receive a price per hundred pounds based on cheese manufacturing price, as outlined in contract.

To further demonstrate this we will assume the highest average quotation for Fresh Average Fancy Colored Cheese was 18½ cents per pound. Deducting the one per cent. per pound for manufacturing we would have 17½ cents per pound and as stated in contract there would be 10 pounds allowed for each one hundred pounds milk, therefore, the price paid would be \$1.75 per one hundred pounds for this balance of 1,000 pounds of milk.

Or expressed in figures only:

9,000 pounds at contract price or \$2.00	\$180.00
1,000 pounds at cheese manufacturing price or \$1.75	17.50
Total	<u>\$197.50</u>

The Merrell-Soule Company are extensive manufacturers of milk powder by the spray process. They have large plants in the western part of the State of New York, and manufacture large quantities of the product. September 26, 1916, this company issued the following notice or contract:

EXHIBIT NO. 186

September 26, 1916.

To Our Patrons:

On and after October 1st, 1916, and until further notice, the price of milk will be \$2.00 per cwt. delivered at our plant at Little Valley, or \$1.90 per cwt. when hauled by our teams.

These prices are based on milk testing 4 per cent. butter fat, with an addition of 3 cents for each one-tenth per cent. above 4 per cent., and a deduction of 3 cents for each one-tenth per cent. below 4 per cent.

The above price will be paid providing conditions are maintained which will score 68 points or more, 25 on equipment and 43 on methods, according to the New York City Department of Health Score Card.

On all dairies which score less than 25 on equipment and 43 on methods, there will be a deduction of 10 cents per cwt.

All milk must be cooled in such a manner as to be received at our plant at 60 degrees F., or lower.

MERRELL-SOULE CO.

Little Valley, N. Y.

Borden's Condensed Milk Company issued the following contract at its station at Ellicottsville, N. Y., in September, 1916:

EXHIBIT NO. 185

To Patrons:

The following prices for the different B. F. tests will be paid per 100 pounds of milk delivered during the month of October, 1916, at Ellicottville, N. Y., factory.

BORDEN'S CONDENSED MILK COMPANY.

3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7
1.66	1.69	1.72	1.75	1.78	1.81	1.84	1.87
3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5 and over
1.90	1.93	1.96	1.99	2.02	2.05	2.08	2.11

The above prices will be paid to dairymen where they maintain, during this contract, conditions scoring not less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, according to the New York Department of Health Score Card as scored by the Company's representatives. Dairymen scoring less than twenty-five (25) per cent. on equipment and forty-three (43) per cent. on methods, will receive ten cents (10c) per 100 pounds less than the above schedule.

The Orange County Milk Association in the spring of 1916 issued the following notice or contract at its plant in Goshen, N. Y.:

ORANGE COUNTY MILK ASSOCIATION.

Beginning April 1st, we will pay for milk from dairies scoring 68 (Equipment 25, Method 43) delivered at our condensary or Goshen Village Plant as follows:

Test	April	May	June	July	August	September
3.3.....	\$1 40	\$1 15	\$1 09	\$1 35	\$1 51	\$1 60
3.4.....	1 43	1 18	1 12	1 38	1 54	1 63
3.5.....	1 46	1 21	1 15	1 41	1 57	1 66
3.6.....	1 49	1 24	1 18	1 44	1 60	1 69
3.7.....	1 52	1 27	1 21	1 47	1 63	1 72
3.8.....	1 55	1 30	1 24	1 50	1 66	1 75
3.9.....	1 58	1 33	1 27	1 53	1 69	1 78
4.0.....	1 61	1 36	1 30	1 56	1 72	1 81
4.1.....	1 64	1 39	1 33	1 59	1 75	1 84
4.2.....	1 67	1 42	1 36	1 62	1 78	1 87
4.3.....	1 70	1 45	1 39	1 65	1 81	1 90

For other milk accepted, prices will be 10c less per cwt. than given above.

Operating under the Dairymen's League agreement, apparently, the Locust Farms Company in October, 1916, issued the following notice or contract:

LOCUST FARMS COMPANY.

NEW YORK, October 14, 1916.

Mr. M. Starr, Billings, N. Y.:

To the Patrons of This Creamery

Dear Sir.—The Locust Farms Company hereby announce the following prices for milk testing 5 per cent. butter fat, and eligible for Grade A pasteurized for the 6 months from October 1st, 1916 to March 31st, 1917.

- \$2.85 per 100 cwt. for October.
- 2.95 per 100 cwt. for November.
- 2.95 per 100 cwt. for December.
- 2.85 per 100 cwt. for January.
- 2.80 per 100 cwt. for February.
- 2.75 per 100 cwt. for March.

with a deduction of 3 cents per 100 cwt. for each point in butter fat below 5 per cent.

The prices for the last three months mentioned are subject to revision by a committee to consider the cost of production, distribution and market conditions.

Yours truly,

LOCUST FARMS COMPANY,

A. CUDDEBACK, President.

Prior thereto and on September 18, 1916, the same company issued a similar notice, but with the following prices:

October.....	\$2 65
November.....	2 80
December.....	2 80
January.....	2 65
February.....	2 60
March.....	2 55

In March, 1915, the Locust Farms Company for the same station issued the following contract:

AGREEMENT BETWEEN E. W. Roylance and LOCUST FARMS COMPANY

NEW YORK, Mar. 15, 1915.

Mr. E. W. Roylance, party of the first part, hereby agrees to sell and deliver at the creamery of the Locust Farms Company, party of the second part, at Billings, N. Y., all the pure and untainted milk product of his or her dairy, amounting to about:

	Per cwt.
..... pounds per day in April, at.....	\$1 55
..... pounds per day in May, at.....	1 30
..... pounds per day in June, at.....	1 24
..... pounds per day in July, at.....	1 40
..... pounds per day in August, at.....	1 56
..... pounds per day in September, at.....	1 65
..... pounds per day in October, at.....	.....
..... pounds per day in November, at.....	.....
..... pounds per day in December, at.....	.....
..... pounds per day in January, at.....	.....
..... pounds per day in February, at.....	.....
..... pounds per day in March, at.....	.....

NOTE.—Grade C Milk 10 cents per cwt. less. Milk below 3.60 butter fat 10 cents per cwt. less.

The Locust Farms Company hereby agrees to buy and does buy the above mentioned product and hereby agrees to pay each month's delivery on the 15th day of the month following at the prices above stated. Party of the first part hereby agrees to comply with the regulations of the New York City Department of Health, to feed no wet brewers' grains during the term of this agreement.

1. This milk must be delivered at the creamery at the temperature of 50 degrees Far., or below and it must be delivered at such time as the creamery superintendent may require.

2. The milk from any cow suspected of being ill shall be discarded from the herd milk.

3. Cans and utensils must not be cleaned or stored at the house where there is any contagious disease.

4. All milk utensils must be scrupulously clean before using, and no milk shall be kept in a living room, or a room connected with the stable.

5. The cow stables to be whitewashed twice a year, in the spring and fall.

6. A veterinary's certificate as per forms furnished by the New York City Department of Health to be furnished at the expense of the party of the second part, on or before June 1st, showing the physical condition of the herd.

7. It is mutually agreed by the parties hereto that the right is reserved to the Locust Farms Company to terminate this contract at any time under the following conditions: In case of fire or other accidents to the buildings or machinery, or in case of a strike or a tie-up on the railroad, or any other conditions not under the control of the said Locust Farms Company, which would make it impossible to market the milk.

It is further agreed that a bonus of 3 cents per cwt. for each one-tenth per cent butter fat, over and above 4 per cent will be paid, and that any milk testing below 3.6 per cent. for butter fat, or below the legal standard in solids shall terminate this contract at the option of the party of the second part.

IN WITNESS WHEREOF the parties have hereunto set their hands this March 23, 1915.

.....
LOCUST FARMS COMPANY,
Per M. STARR.

HISTORY OF A "DAIRYMEN'S PLAN" AND METHOD OF DISPOSING OF PRODUCT

Mr. JOHN D. MOORE, called as a witness, testified:

I live in Lowville and am connected with the Lowville Milk and Cream Company. That is a co-operative company. They are capitalized at \$5,000. It was incorporated in 1901. \$4,700 was paid in. The capital was not sufficient to build and equip the station. It cost in the neighborhood of \$16,000 to date. We commenced shipping milk in February, 1902, and it was not then complete. Instead of making cheese, we sold the milk or leased the factory to the Howell Milk and Cream Company. Then we put on additions to the building and sewerage, a reservoir for water and pipe system. Our only equipment was for making cheese and weighing cans. The Howell Company equipped it as a milk station and put in a condensing plant at their own expense. They paid us \$400 rent to commence with. We put in cement floors and we built an addition to the ice house; it cost in the neighborhood of \$6,000 three or four years ago. We issued bonds to the amount of \$4,500 and borrowed money from the bank. The bonds were secured by a first mortgage and the stockholders took the bonds. We sold the milk to the Howell Company for about seven years. Then we sold it to the Alexander Campbell Company of Brooklyn. Howell moved out his condensing plant. We were dissatisfied with that company who were shipping milk to New York and we did not renew the lease with them, but found a new tenant. We made cheese there for a short time after Howell left until the Campbell lease. Our present lease is to the Alexander Campbell Milk Company; it runs for a term of two years and eleven months from the 1st of November, 1915, to September 3, 1918. That company pays us \$800 a year rent for the plant. The \$800 would not pay the

interest and the expense of maintaining the plant. Our company pays the interest, taxes, repairs and up-keep which amounts to three or four hundred dollars a year. The company gets a dumpage of one cent per hundred pounds of the milk that is put in from the patrons and stockholders and out of that makes a fund which pays the interest. The Campbell Company draw their checks to the Lowville Milk and Cream Company. When it gets the check each month, we take out one cent per hundred pounds dumpage from each man for the amount of milk he has drawn and give him a check for the balance. Whether they are stockholders or not they pay the same charge of one cent per hundred pounds. The original contract between our company and the Campbell Company was as follows:

THIS LEASE AND AGREEMENT, made this first day of September, 1912, between THE LOWVILLE MILK AND CREAM COMPANY, a corporation duly organized under the laws of the State of New York, of Lowville, N. Y., party of the first part, and ALEXANDER CAMPBELL MILK COMPANY, also a corporation duly organized under the laws of the State of New York, with its principal offices at No. 802 Fulton street, Brooklyn, N. Y., party of the second part, WITNESSETH.

In consideration of the rents and covenants hereinafter expressed, the said party of the first part has demised and leased, and does hereby demise and lease to the said party of the second part the following premises, viz: All that Tract or Parcel of Land, situated in the village of Lowville, Lewis County, New York, bounded Westerly by the Railroad; Southerly by Bostwick Street; Easterly by land owned by William Holzworth; and Northerly by the land formerly owned by and occupied by W. G. Conover, excepting the right of way, and including the Milk Station buildings thereon, with the appurtenances and privileges, for and during the term of one year from September 1st, 1912, which term will end August 31st, 1913, with all tools and appliances now at said station that are owned by first party, including the well and pump.

First party agrees to keep said buildings and drains in good condition, and in all respects so as to comply with the rules, regulations and requirements of the Health Department of the City of New York.

The said party of the second part covenants that it will pay to the party of the first part for the use of said premises and property, the annual rent of Eight Hundred Dollars, quarterly thereafter during said term, \$200 (\$200) each three months, commencing December 1st, 1912, and provided second party shall fail to pay said rent, or any part thereof, when it becomes due, it is agreed that first party may sue for same, or re-enter and re-take possession of said premises and property, or resort to any legal remedy,

Second party is to have free use of the spring water as now brought to said station.

Second party has the privilege of placing in the building any necessary additional machinery and to have the right to remove the same during said term.

The party of the second part covenants that at the expiration of said term it will surrender up said premises to the party of the first part, including said equipment and personal property owned by first party, in as good condition as when possession is taken, necessary wear and damages by elements excepted.

It is further agreed that the party of the first part, in consideration of the covenants herein contained, agrees to sell and deliver to the party of the second part at aforesaid premises, from the 1st day of September, 1912, to and including the 31st day of August, 1913, all the milk produced by the stockholders of the first party, who delivers their milk to the said station or factory for the entire year and to such stockholders, who may live at too great a distance to deliver their milk to the station or factory during the summer months, they may deliver their milk to the station or factory from the 1st day of November, 1912, to and including the 28th day of February, 1913, unless such patron's milk is wanted for a longer period by the party of the second part, except the cheese factory patrons who will provide ice to deliver their milk from July 15, 1913, if called upon by the second party, their milk will be received from November 1, 1912, to and including the 31st day of March, 1913.

The party of the second part agrees to take on new patrons at any time of the year, provided they agree to bring their milk the whole year, and also provided that their buildings and surroundings meet with the requirements of the Board of Health of New York City.

The stockholders and producers of such milk agree to draw four-fifths of the milk produced by them once daily during the summer months, in the morning, and are to use a suitable aerator for cooling the night's milk to 50 degrees or 52 degrees Far. at once and deliver such milk cooled as aforesaid at the station aforesaid at a temperature not exceeding 55 degrees Far.

Said milk shall be delivered by each farmer, pure, sweet and clean and in good healthful and marketable condition, containing not less than 11½ per cent. solids and produced in places that have been approved and accepted by the inspectors of the Department of Health of the City of New York, and shall comply in all respects with the rules, regulations and requirements of the Health Department of the City of New York.

Second party shall have the right to reject and decline to receive at said station any milk which does not comply with the conditions and requirements aforesaid, or is delivered at said station later than nine o'clock a. m. during the summer months.

The party of the second part hereby agrees to accept and receive all milk produced and delivered in a clean and sound condition as above provided and within the time aforesaid and to pay the party of the first part for the same monthly, that is to say, on or before the tenth of each month for all the milk delivered up to and including the last day of the previous current month, the price to be paid for such milk for the months of March, April and May shall be one-half cent per quart less than the price made and quoted by the New York Consolidated Milk Exchange, LIMITED, during the same months. For the months of September, October, November, December and January shall be six cents per can less than the prices so made and quoted. For the months of February, June, July and August shall be one-fourth cent per quart less than the price so made and quoted. In case the price received for the milk figures a fraction over the one-half cent, first party is to receive the full cent

and in cases where the fraction is less than the one-half, the fraction is to be taken off. All calculations and figures are to be based on 85 pounds to a forty quart can of milk. Said prices are to govern during the term of this lease.

The party of the second part agrees to keep and provide a capable man at the said station and premises during the term of this lease, to receive, weigh and keep an honest daily account and statement of the milk of each of the patrons delivering the same as hereinbefore mentioned and each day shall deliver a copy thereof to the party of the first part at their office in the village of Lowville, New York.

The producers of such milk shall each and every one of them be required to cause all milk delivered by them to be run or strained through a suitable aerator and the party of the second part shall have the right, through a suitable representative, of examining all aerators in use by the various persons delivering milk with the view of determining whether such aerators are properly used and kept in a clean and wholesome condition.

First party is to pay all taxes and insurance on the property hereby leased during said term.

It is understood and agreed that in case the aforesaid station is destroyed or rendered unfit for use by fire, cyclone, tornado or wind-storm whereby it could not be used for the purpose of receiving, caring for or shipping the milk, the party of the second part shall continue the milk, if the party of the first part so requires and the party of the first part agrees to construct on said premises a temporary building for receiving and shipping the milk for such a time as may be required in reconstruction of the damaged building.

In case party of the second part shall at any time during the continuance of the contract be desirous of purchasing more milk than is provided by the stockholders of the party of the first part, the said party of the second part shall notify the Secretary of the first part of such desire and thereupon the first party shall have the first chance to supply such additional quantity of milk delivered from outside sources within the territory of the said station or factory upon like terms.

IN WITNESS WHEREOF, The said parties of the first and second parts have caused its several corporate seals to be hereto affixed and this instrument to be subscribed by its President and Secretary the day and year first above written.

LOWVILLE MILK AND CREAM COMPANY.

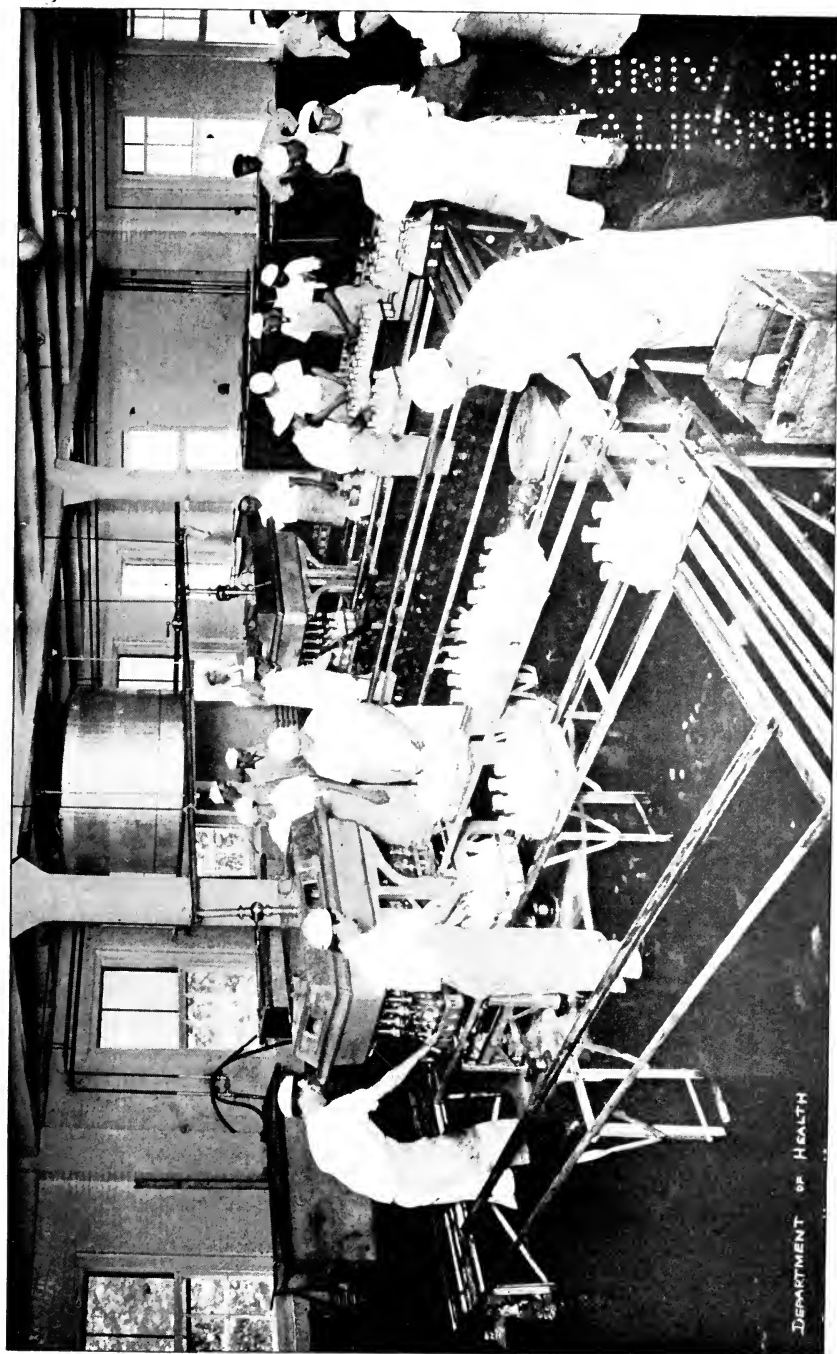
.....President.
.....Secretary.

ALEXANDER CAMPBELL MILK COMPANY.

.....President.
.....Secretary.

The same contract was continued, except that the prices are changed as follows:

The prices to be paid for the months of April, May, June, July, August and September, 1915, shall be based on the highest price paid for average Fancy Cheese for each of the said months, as shall be quoted in the Journal of Commerce and the New York Bulletin each Wednesday of the period, and the aver-



Milk supplied to the metropolis is handled under high sanitary methods

age price for the month calculated therefrom. The number of pounds of milk to make a pound of cheese to be determined from the average of this year's make of cheese from four cheese factories in Lewis County, two to be selected by each party. For Grade C Milk the price will be ten cents per 100 pounds less. In case the price received for the milk figures a fraction over the one-half cent, first party is to receive full cent and in cases where the fraction is less than one-half, the fraction is to be taken off. All calculations and figures are to be based on 85 pounds to a forty-quart can of milk. Said prices are to govern during the term of this lease.

The present contract made in 1915 is substantially the same in its provisions, except as to price, which now provides:

The second party agrees to pay the price per 100 pounds of Grade B and Grade C milk as is paid by the Borden's Condensed Milk Company each month during the term and life of this lease, as quoted in the Milk Reporter, published at Sussex, New Jersey, on 3.7 test. No butter fat decrease or increase to be calculated or paid. It is agreed that all calculations or figures are to be based on 85 pounds to a 40-quart can of milk and said prices to govern during the term and life of this lease and agreement.

NOTE.—This agreement runs to September 30, 1918.

Mr. Moore.—Whatever the Borden price is, our patrons must be satisfied under this contract. We have in the neighborhood of 100 stockholders, but they are only delivering about 20 cans daily now. (October 10, 1916.) We had in September about 150 cans, but they have cut it out and put it into the cheese factory last Saturday. We commenced shipping in February, 1902. The first two years we sold to Howell on a cheese basis. We figured 10 pounds of milk to a pound of cheese and took the quotations in the New York Bulletin on each Wednesday during the month. We made cheese in October, 1915. The Campbell contract run out and we made a temporary contract on a cheese basis for six months until we made the last contract. In 1915, we took in 7,176,000 pounds of milk and our corporation got about \$717.60 for the dumpage. We charged the stockholders and non-stockholders all alike and that with the lease money would pay the interest on the stock of the people and the mortgage and kept up the taxes and insurance. We owe now approximately \$5,000. We have no pasteurizer. The milk is shipped to Brooklyn and pasteurized there. The plant is only equipped for cheese making and shipping. The freight rate from here to New York is 32 cents, as I understand it, per can. In June, 1916, we got \$1.20 for

milk and \$1.30 for B milk." (Sheffield Farms, Slawson-Decker Company were paying in Steuben County at one of their plants \$1.34 and drawing the milk. The Sheffield Farms, Slawson-Decker Company were paying at Hornell in Steuben county \$1.47, farmers drawing it, for 3.7 milk. The Borden published price for July was \$1.40.)

Mr. Moore.— Our July price was \$1.30 for C milk and \$1.40 for B Milk.

EXISTING CONTRACTS OF THE DAIRYMEN'S LEAGUE

AGREEMENT NO. 1

AGREEMENT MADE THIS 7th day of October, 1916, between the Dairymen's League, a corporation organized under the laws of the State of New Jersey as agent, party of the first part, and the undersigned milk distributors located in New York City, parties of the second part, witnesseth:

The parties hereto in consideration of the premises herein and the sum of One Dollar by each to the other in hand paid, the receipt whereof is hereby acknowledged, do hereby mutually promise and agree as follows:

1. The party of the first part agrees to sell and deliver at various shipping stations and creameries of the parties of the second part, and the parties of the second part agree to take and pay for as hereinafter provided, each day during the period covered by this contract all of the milk produced by the members of the party of the first part from whom the party of the second part is now or has been receiving milk if not previously sold, and such additional quantity of milk required by the second parties, shall, if possible, be obtained from the party of the first part. It is understood that all milk sold under the agreement shall be of good quality and must pass the inspection and approval of the authorities of the State of New York and Municipality of New York City.

2. The parties of the second part agree to pay to the party of the first part for all milk received by it at its said stations from the party of the first part the following schedule of minimum prices for Grade B milk testing three per cent. butter fat.

Per hundred pounds.	First district	Second district
October.....	\$2 15	\$2 05
November.....	2 25	2 15
December.....	2 25	2 15
January.....	2 25	2 05
February.....	2 10	2 00
March.....	2 05	1 95

Three cents per hundred pounds of milk added for each one-tenth increase in butter fat.

Grade C milk 10 cents less per hundred pounds as heretofore.

3. The party of the second part hereby agrees to pay on or before the 10th day of each month for all milk received by it from the 16th day up to and including the last day, inclusive of the previous month, and also agree to pay on or before the 25th day of the month for all milk received by it between the 1st

and 15th day, inclusive of the current month, or has been the custom of each of the distributors herein. The parties of the second part further agree out of the purchase price aforesaid to pay the sum of one cent per hundred pounds to the treasurer of the Dairymen's League at his office at Sussex, New Jersey, or his successor where the said successor may have his office, and the balance of the purchase price to the producers of the said milk.

4. It is further understood that in case the parties of the second part have not filed with the Commissioner of Agriculture or with other proper authority the bond required by law for a milk gathering station, then it is agreed that each of the parties of the second part is to furnish the party of the first part with a surety company bond, satisfactory in form to the party of the first part in the sum of not less than

dollars, conditioned upon the prompt payment of all moneys due or to become due under this agreement and for the whole performance of this agreement according to its terms.

5. It is further understood and agreed that this contract is to begin and take effect on the 7th day of October, 1916, and to continue for a period of six months from that date.

6. THE PRICES SET FORTH IN PARAGRAPH TWO HEREOF FOR THE MONTHS OF JANUARY, FEBRUARY AND MARCH, 1917, SHALL BE SUBJECT TO REVISION AND MODIFICATION BY AN ARBITRATION BOARD to be appointed as hereinafter provided upon condition that said board shall decide that said prices shall exceed the actual cost of production of said milk during said months plus a reasonable profit thereon. Said board shall consist of five members, who shall be appointed as follows: Two members by each of the parties hereto and the fifth member by the said four members thus appointed.

IN WITNESS WHEREOF the Dairymen's League has hereunto signed its official signature by R. D. Cooper of its Executive Committee and the party of the second part has hereunto set his hand and seal.

DAIRYMEN'S LEAGUE,

By R. D. Cooper.

In the presence of

F. H. THOMPSON.

The Empire State Dairy Co., C. Neidner, Vice-Pres.

Wm. Burgers, for Standard Dairy Company.

Central Dairy Co., by Chas. Vonhof, Jr., Sec.

New York Dairy Produce Co., Wm. J. Blair, Pres.

National Dairy Co., by Chris. Oher.

James C. Ridner & Co., Geo. W. Rider, Secy.

Zellner Bros., Inc., by Jacob Zellner.

Ullman & Hauk Dairy Co., by C. Hauk.

**GENTLEMEN'S AGREEMENT NOT SIGNED BUT UNDERSTOOD TO BE
ENTERED INTO BETWEEN THE REPRESENTATIVES OF THE DAIRY-
MEN'S LEAGUE AND THE LARGER MILK BUYERS ON OCTOBER 14,**

AGREEMENT No. 3, MADE ON OCTOBER 14, 1916

(The only one in force at the present time with the big companies)

Dealers are to announce to their Receiving Stations that for the months of October to March 31st, they will pay 45 cents advance over Borden's price for the corresponding months of 1915 and 1916, such prices to be firm for three months (October, November and December), and as to January, February and March, 1917, are to be subjected to revision and modification by a Committee which is to be appointed: two by the Dealers, two by the Producers and they to appoint a fifth, who are to consider the cost of production, distribution and market conditions and arrive at a price fair and equitable to both parties. This Committee to be appointed and organized within thirty days from this date, October 14, 1916.

The Dairymen's League contracts above set out seem to be the first attempt to introduce uniformity into the purchase of this product. The various types of contracts and offers above set forth show many different forms, methods and elements of value. If on examination they are found to be confusing and mystifying to the ordinary reader, it is evident that they will be equally confusing and mystifying and difficult to understand by the ordinary dairyman who is not able to give a great deal of time and study to the matter. These type contracts and methods of making prices are reported here not for the value of any particular method or instrument set out, but for the purpose of affording a view of the many different prevailing conditions under which milk is sold. In order that a clear view of these varying conditions may also be had, the Committee reports herewith statistics of prices actually paid for milk in various sections of the State during various years.

BORDEN'S PRICES, SUMMER OF 1916

SHORT HAUL

3.3 butter fat

April.....	\$1 40
May.....	1 15
June.....	1 09
July.....	1 35
August.....	1 51
September.....	1 60

These prices were increased 10 cents per 100 pounds for the months of April, May, June and July, as disclosed by the evidence.

BORDEN'S SUMMER CONTRACT PRICES, 1916

LONG HAUL

3.3 butter fat

April.....	\$1 30
May.....	1 05
June.....	99
July.....	1 25
August.....	1 41
September.....	1 50

These prices were likewise increased 10 cents per hundred during some of the months. An additional 3 cents per hundred pounds was paid for each additional one-tenth of butter fat shown by the test. Dairymen scoring less than 25% on equipment and 43% on methods, received 10 cents per hundred pounds less than the above schedule.

The Locust Farms Company paid at Billings, N. Y., the following prices for 5% milk, with a deduction of 3% for each one-tenth per cent. of butter fat.

	Per cwt.
April.....	\$2 06
May.....	1 81
June.....	1 75
July.....	1 96
August.....	2 12
September.....	2 21

This made the price of this Company for 3.3 milk, score 68, as follows:

	Per cwt.
April.....	\$1 55
May.....	1 30
June.....	1 24
July.....	1 45
August.....	1 61
September.....	1 70

The Levy Dairy Company paid at Bartlett, N. Y., as follows:

	Per cwt.
May.....	\$1 24
June.....	1 08
July.....	1 34
August.....	1 50

The Chemung Valley Dairy Products Company in the summer of 1916 paid the following prices:

	Per cwt.
April.....	\$1 40
May.....	1 27
June.....	1 05
July.....	1 27
August.....	1 51
September.....	1 63

Ten cents per 100 pounds added for milk testing 4%.

HORSEHEADS CREAMERY COMPANY PRICES

	Per cwt.
April.....	\$1 35
May.....	1 10
June.....	1 05
July.....	1 25
August.....	1 40
September.....	1 50
October.....	1 65
November (proposed).....	1 75

With 10 cents per hundred pounds for all milk testing 4 per cent butter fat or better.

F. X Baumert & Co., of Antwerp, paid for milk containing 3.4 butter fat, with a premium of 3 cents for each additional point:

	Per cwt.
April.....	\$1 40
May.....	1 40
June.....	1 40
July.....	1 40
August.....	1 50
September.....	1 60

The Standard Dairy Company paid at Sauquoit, N. Y., Grade B milk, as follows:

	Per can of 40 quarts
April.....	\$1 25
May.....	1 12
June.....	1 05
July.....	1 15
August.....	1 28
October.....	1 40

The Seminole Condensary, at Holland Patent, N. Y., paid for 1916, as follows:

	Per cwt.
January.....	\$1 80
February.....	1 75
March.....	1 68
April.....	1 45
May.....	1 35
June.....	1 25
July.....	1 45

The shipping station at Adams Center, Jefferson county, N. Y., in 1916, paid the following prices:

	Per cwt.
January.....	\$1 85
February.....	1 70
March.....	1 60
April.....	1 45
May.....	1 40
June.....	1 35

The Rosemary Creamery, Adams, 1916:

	Per cwt.
January.....	\$1 85
February.....	1 70
March.....	1 60
April.....	1 50
May.....	1 40
June.....	1 35

State School Dairy, Industrial Department, Canton:

	Per cwt.
January.....	\$1.859
February.....	1.777
March.....	1.70
April.....	1.47
May.....	1.226
June.....	1.177

Beake's Dairy Company, Massena:

	Per cwt.
January.....	\$1 80
February.....	1 80 and \$1.70
March.....	1 70-60
April.....	1 45
May.....	1 30
June.....	1 15

Model Dairy Company, Greenway, Oneida county, N. Y., 1916:

	Per cwt.
January.....	\$1 80
February.....	1 75
March.....	1 65
April.....	1 50
May.....	1 30 grade C; \$1.40 grade B
June.....	1 20 grade C; \$1.30 grade B
July.....	1 30 grade C; \$1.40 grade B

Brushton Creamery, Brushton, Franklin county, N. Y. (Edward Gale's statement), 1916:

	Price per cwt.	Test
January.....	\$1.479	4.2
February.....	1.584	4.6
March.....	1.435	3.6
April.....	1.341	3.5
May.....	1.221	3.6
June.....	1.159	3.5

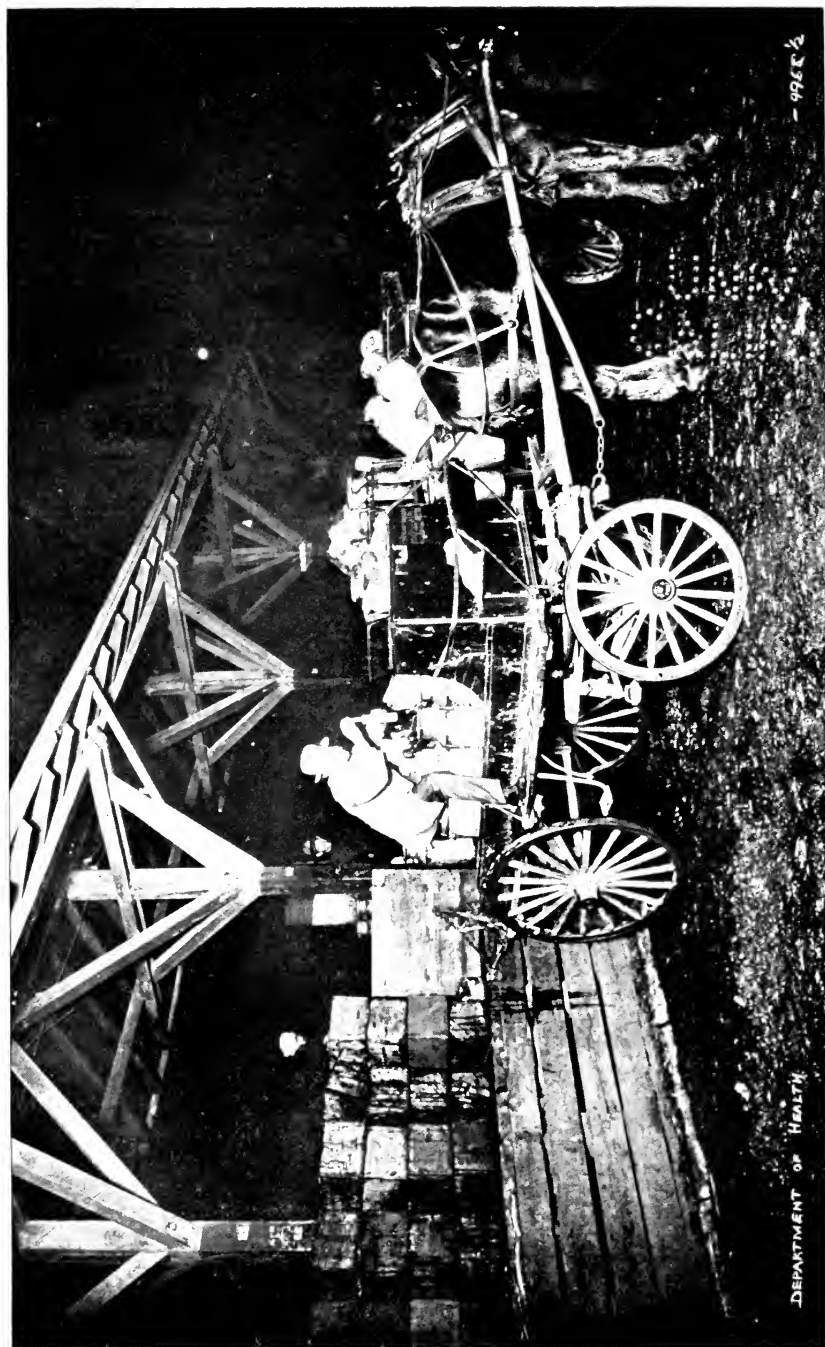
Eames' Cheese Factory, Jefferson county—patrons' statements:

(EXHIBIT No. 86)

	Cheese, price	Milk delivered	Average pounds milk to pounds cheese	Net price per 100 pounds of milk
April 27.....	15 $\frac{3}{4}$	1,868	10.50	\$1.4507
May 1.....	15 $\frac{3}{4}$	2,622	11.12	1.37
May 8.....	16	1,748	11.36	1.35
May 15.....	15 $\frac{5}{8}$	2,070	11.10	1.438
May 22.....	17 $\frac{1}{4}$	2,087	11.20	1.4766
May 29.....	17 $\frac{3}{8}$	2,252	10.43	1.58
June 5.....	14 $\frac{1}{2}$	2,191	10.76	1.27
June 12.....	14 $\frac{1}{2}$	4,984	10.29	1.2957
June 19.....	14 $\frac{3}{4}$	3,147	10.55	1.3348
June 26.....	15	3,102	10.66	1.33
July 3.....	14 $\frac{7}{8}$	3,555	10.62	1.3146
July 10.....	14 $\frac{3}{4}$	3,193	10.75	1.29
July 17.....	14 $\frac{5}{8}$	3,340	11.05	1.2477
July 24.....	14 $\frac{1}{8}$	3,147	11.09	1.20

Harlem Dairy Products Company, Clinton, N. Y., 1916:

	Per cwt.
January.....	\$1 85
February.....	1 75
March.....	1 70
April.....	1 40
May.....	1 15
June.....	1 10
July.....	1 25
August.....	1 40
September.....	1 50



An inspector from the Department of Health, New York, at work in the early morning hours

to you
continued

Fort Plain Milk Company:

	Per cwt.
April.....	\$1 30
May.....	1 10
June.....	1 05
July.....	1 20
August.....	1 35
September.....	1 45

Farmer's Co-operative Milk Company, Inc., at Poughkeepsie:

	Per cwt.
April.....	\$1 75
May.....	1 55
June.....	1 45
July.....	2 10
August.....	2 10
September.....	2 10
October.....	2 10
November.....	2 10
December.....	2 10

Farmer's Co-operative Milk Company, Wappingers Falls, 1916:

	Per cwt.
April.....	\$1 70
May.....	1 40
June.....	1 30
July.....	1 70
August.....	1 90
September.....	1 90
October.....	2 00
November.....	2 00
December.....	2 00

O. A. Weatherly & Company, Milford, N. Y., 1916:

	Per cwt.
January.....	\$1 90
February.....	1 85
March.....	1 80

Borden's prices for summer of 1916. Clover-Dale Farms Company, Binghamton, N. Y., Grade C Milk:

	Per cwt.
April.....	\$1 50
May.....	1 20
June.....	1 10
July.....	1 30
August.....	1 55
September.....	1 80
October.....	1 95
November.....	2 05
December.....	2 05

Ten cents additional for B grade as scored by the New York State Board of Health. Ten cents additional for milk with an average test of 4.5 butter fat.

Vernon Milk Station, Oneida County, 1916:

	Per cwt.
April.....	\$1 49
May.....	1 24
June.....	1 18

Oswego County Cheese Factory, 1916:

	Per cwt.
April.....	\$1 44
May.....	1 39
June.....	1 35

Whey returned to patrons.

Oneida County Creamery, 1916:

	Per cwt.
April.....	\$1 44
May.....	1 27
June.....	1 14

Patrons returned skim milk.

Oneida County Cheese Factory, 1916:

	Per cwt.
April.....	\$1 51
May.....	1 34
June.....	1 27 5

Beake's Dairy Company, Franklin, Delaware county, 1916:

	Per cwt.
January.....	\$1 84
February.....	1 82
March.....	1 68
April.....	1 43
May.....	1 30
June.....	1 14

Sheffield Farms, Slawson-Decker Company, Richmondville,
N. Y., 1916:

	Per cwt.
January.....	\$2 05
February.....	1 95
March.....	1 90
April.....	1 70
May.....	1 40
June.....	1 40
July.....	1 50
August.....	1 65
September.....	1 70

Sheffield Farms, Slawson-Decker Co., South Kortwright, N. Y.,
1916:

	Per cwt.
April.....	\$1 70
May.....	1 40
June.....	1 40
July.....	1 50
August.....	1 65
September.....	1 70

Delhi Co-operative Dairy Company, 1916; 3% milk (allied
with Sheffield Farms, Slawson-Decker Company):

	Per cwt.
April.....	\$1 36
May.....	1 21
June.....	1 08

Mutual McDermott Milk & Cream Co., Burke, Franklin county,
N. Y., 1916:

	Per cwt.
January.....	\$1 85
February.....	1 75
March.....	1 60
April.....	1 50
May.....	1 30
June.....	1 25
July.....	1 35
August.....	1 45

Sheffield Farms, Slawson-Decker Co., contract at Malone, N. Y.,
1916:

	Per cwt.
April.....	\$1 50
May.....	1 30
June.....	1 25
July.....	1 40
August.....	1 45
September.....	1 50

The contract was made and signed as follows:

	Per cwt.
April.....	\$1 40
May.....	1 10
June.....	1 05
July.....	1 30

But it was increased as above by the Company.

The Malone contract differs from the Richmondville contracts given above principally in this provision: "Second: The first party agrees to pay in addition to stated prices 3 cents a point per hundred pounds for butter fat from 3.8 to 5%. There will be a deduction of 3 cents per 100 pounds for each one-tenth per cent. below 3.8."

Beake's Dairy Company, E. Freetown, Cortland county, 1916:

<i>Grade B</i>	
	Per cwt.
April.....	\$1 45
May.....	1 35
June.....	1 25
July.....	1 40

Grade C 10 cents less.

Brown and Bailey Condensed Milk Company, Big Flats, Chemung county, 3.8 milk, 1916:

	Per cwt.
April.....	\$1 55
May.....	1 35
June.....	1 25
July.....	1 40

Chemung Valley Condensing Company, formerly Newark Milk and Cream Company, North Chemung:

	Per 40-quart can
April.....	\$1 20
May.....	1 00
June.....	1 10
July.....	1 10
August.....	1 25
September.....	1 40

Fairfield Dairy Company, Montclair, N. J., prices on farm railroad platform in Tioga county, grade A, raw, New Jersey requirements; 1916, April, May, June, July, August and September, 33 1/3 cents per hundred pounds above Borden's actual prices, with butter fat test.

(NOTE.—These producers were required to have special barn equipment for sterilizing utensils, etc.)

Alexander Campbell Milk Co. prices at Candor, N. Y., B milk, testing 3.7. 1916:

	Per cwt.
April.....	\$1 32
May.....	1 07
June.....	1 01
July.....	1 27
August.....	1 43
September.....	1 52

Three cents additional for each pound of butter fat above 3.7. Five cents additional per hundred pounds of milk for all milk showing a bacterial count not exceeding 40,000 per cubic centimeter.

Martin's Tioga Dairy, Tioga Center, N. Y., alleged Borden's long haul price, 1916:

	Per cwt.
April.....	\$1 61
May.....	1 36
June.....	1 30
July.....	1 56

Delivered at station.

Levy Smith of Newark, N. J., prices paid at Tioga Center, N. Y., 1916:

	Per cwt.
January.....	\$1 84
February 1-15.....	1 79
February 16-29.....	1 75
March 1-16.....	1 74
April.....	1 55
May.....	1 30
June.....	1 24
July.....	1 53
August.....	1 50
September.....	1 78

No butter fat.

Newark Milk and Cream Company, Ashland, N. Y. Mr. Wright called and testified: "I am manager of this creamery. This company does not pay a uniform price in all their stations. It is this way. I think they have a plant somewhere where they have to churn very largely and where they have to make some cheese and I think they go there and are candid about it and say, 'Now, we expect to make butter here and cheese here a great deal of the time. Part of the time we may have to ship milk.' Of course, this is from conversations that I have heard and not from any positive knowledge, but I think they have such places. I can

give you the prices paid at Ashland in January, February, March, April and May. They are as follows:

	Per quart
January.....	.03875
February.....	.0362
March.....	.03625
April.....	.03
May.....	.02625

These were the prices received for my milk. They paid all other patrons at this plant at the same price. They lease this plant of us. I am the practical owner of the plant."

Brown & Bailey, Big Flats, Chemung county, 1916:

	Per 100 pounds
April.....	\$1 50
May.....	1 20
June.....	1 15
July.....	1 40
August.....	1 56
September.....	1 65

Mr. Mindthorin testifies: "The Brown & Bailey Company leased this plant of the Chemung Valley Dairy Products Company. That was a dairymen's concern. When the Brown & Bailey Company put out these prices a lot of us met with them. They said they would pay us more if they could. As a matter of fact, they did advance these prices as follows:

	Per 100 pounds
April.....	\$1 30
May.....	1 35
June.....	1 25
July.....	1 40

We had no written contract.

Sayre Creamery and Cold Storage Company, Sayre, Pa., price paid Mr. Pembleton of Tioga Center for separated butter fat, 1916:

	Per pound
April.....	\$ 36
May.....	34
June.....	32

Mr. Pembleton testifies: "I have on an average from $3\frac{1}{2}$ to 4 pounds of butter fat in every 100 pounds of milk. I keep the skim milk and use it for stock raising. I figure the skim milk is worth 25 cents for each can of 85 pounds for stock and hogs. It is worth at least 30 cents a can."

During the same period the Horseheads Creamery Company bought cream at Horseheads, N. Y., in the adjoining county for 29 cents per pound of butter fat.

F. W. Jansen of Hoboken. Prices at Whitney's Point, N. Y., as testified to by George H. Graves of Whitney's Point, grade A, raw, shipped direct by rail, 1916:

	Per can of 40 quarts
January.....	\$1 60
February.....	1 55
March.....	1 50
April.....	1 23
May.....	1 15
June.....	97
July.....	1 19
August.....	1 33
September.....	1 40

(Minutes, Volume 2, page 985.)

Clover-Dale Company's price paid Thomas Gahagan, 1916, Binghamton:

	Per cwt.
April.....	\$1 50
May.....	1 20
June.....	1 10
July.....	1 30
August.....	1 80
September.....	1 85
October.....	1 95
November.....	2 05
December.....	2 05

Broome County Dairy Company prices at Binghamton, 1916:

	Per cwt.
January.....	\$1 90
February.....	1 85
March.....	1 75
April.....	1 50
May.....	1 10
June.....	1 25
July.....	1 65
August.....	1 70
September.....	1 70
October.....	1 95
November.....	2 05
December.....	2 05

Mr. Eldred testifies that is for C milk. "We pay 10 cents increase for B milk. The Binghamton city inspector scores the barns. Our milk is all B milk except from three farmers. We get the score sheets from the city. When a man is reported to us as making C milk, we pay him 10 cents less per hundred and try to get him to fix up for B milk."

Otto Gruhn's prices at Galena, Chenango county, 1916:

	Per cwt.
January	\$1 80
February	1 74
March	1 68
April	1 46
May	1 25

(Minutes, pages 1221-1224.)

Prices paid by the Hosler Ice Cream Company of Albany to Brown & Bailey per can of 40 quarts of 40 per cent cream, 1916:

April	\$13 25
May	12 75
June	12 50
July	12 75
August	13 25
September	13 50
October	16 00
November	16 00
December	16 00

Milk

	Per cwt.
April	\$1 80
May	1 80
June	1 80
July	1 80
August	1 80
September	1 80

And from October to March following, \$2 per hundredweight.

Sheffield Farms, Slawson-Decker Company; prices at Stamford, N. Y., paid to Luther H. Hastings of the town of Gilboa, 1916:

	Test	Price per cwt.
January	4.33	\$2 10½
February	4.30	1 99
March	4.43	1.98½
April	4.2	1.76
May	4.2	1 41
June	4.3	1.42½

Dairymen were charged 15 cents per 40-quart can for skimmed milk. Above prices for barn scoring 68 and up. Ten cents less for lower score.



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Charles Rose, Cobleskill, N. Y. Mr. Rose operates a creamery at or near Cobleskill, Schoharie county, N. Y. Eight patrons drew milk to the creamery. Mr. Rose testifies: "I paid the flat Sheffield price for a 3.5 test; Sheffield flat price; took the milk as it was; sold back skim milk at 15 cents a can. Prices as follows:

	Per cent.
April.	\$1 40
May.	1 40
June.	1 30

"I simply weighed the milk and paid them according to the month and don't make any test. I get milk by auto truck also. Have a regular route that the auto truck travels. The farmers bring all milk to the roadway and the truck picks it up. I take 22 dairies in this way. I buy all that milk per 40 quart can and pay different prices in different months. Prices as follows, 1916:

	Per 40 quart can
March.	\$1 60
April.	1 20
May.	1 00
June.	1 00
July.	1 10
August.	1 25
September.	1 40

"When I get the milk to my station, I ship it wherever I can sell it. In June, I shipped cream to a man at Albany named Eddy who furnishes restaurants in Albany, an ice cream man. I separate it and make the skim milk into pot cheese. In June, I sold ten cans of milk to Eddy for \$1.50 per can of 40 quarts. It cost me \$1.10. Cream I get \$13 a 40 quart can for, in June. March, I sold milk for \$1.55 per can to the Normanskill Dairy at Albany. July, I sold the Normanskill people milk at \$1.50 per 40 quart can. I also shipped the Normanskill people a can of skim milk. In January I sold five cans of cream to Brown & Bailey of Canajoharie at \$15 per can to test 40 per cent butter fat."

Borden Branch, Delhi, N. Y.:

		1912		Contract	Total
		Test	Premium	Price	price per 100 lbs
Jan.	Amos	6.	.86	\$1 75	\$2 61
	Blake	6.	.46	1 75	2 21
	Hoag	5.4	.62	1 75	2 30
1913					
June	Amos	4.9	.52	1 00	1 52
	Blake	5.	.56	1 00	1 56
1914					
Jan.	Amos	6.1	1.00	1 75	2 75
June	Amos	5.1	.60	1 00	1 60
1915					
Jan.	Amos	6.3	1.00	1 75	2 75
June	Amos	4.8	.....	1 44	.....
1916					
Jan.	Amos	5.1	.....	.....	2 23
June	Amos	4.7	.....	.....	1 51

Prices at Black River, Jefferson county.

F. F. Hatch of New York city buys at a milk station at Black River in Jefferson county. He has a pasteurizing plant at that point. Receives milk from 22 dairies. Mr. Trenan, the manager, testified: "I inspect the barn. Mr. Hatch sends the score cards to me from New York. I make two cards, send one to Mr. Hatch and keep one. I have been inspecting for two months, and before that E. W. Haff of Adams inspected for the Board of Health of New York city. Ship some milk to Lamley Dairy Company direct. We bottle milk."

Prices to dairymen, 1916, per 100 pounds.

January	\$1 80
February	1 70
March	1 60
April 1-15	1 50
April 16-30	1 45
May	1 30
June	1 30
July	1 40

Mr. Trenan.—"We sell what skim milk we get to the farmers at 10 cents a can. We dump the rest of it. We made no casein or pot cheese. I don't keep any account much of the skim milk."

Mutual McDermott prices, Canton, St. Lawrence county:

1915	
December.....	\$1 50 for 3% milk
1916	
January.....	\$1 55 for 3% milk
February.....	1 55 for 3% milk
March.....	1 50 for 3% milk
April.....	1 40, based on 3.3% milk
May.....	1 15 for 3.3% milk

These prices were increased 3 cents per hundredweight for each point of butter fat.

Tietjen Brothers; prices at Brushton, Franklin county, 1916; per 100 pounds, without butter test:

January.....	\$1 85
February.....	1 75
March.....	1 60
April.....	1 50
May.....	1 30
June.....	1 25
July.....	1 35
August.....	1 45

Aubrey Creek Creamery Company, Dundee, Quebec, purchased by the Fort Covington Company. Mr. Chapman testified: "Our milk went to the Franklin County Creamery Co. Then we organized a co-operative company and the Franklin County Creamery Company could not get what they required in our vicinity. They have a condensery at Fort Covington. Then they went to the Aubrey Creek Creamery Company at Dundee, Quebec. That was operated by a Mr. Curry and they arranged with him to buy all milk that came into that place at \$1.30 per hundred net, and paid Mr. Curry 15 cents per hundred for taking it in and cooling it, and it costs 5 cents a hundred to draw it to Fort Covington, N. Y. Their price for May milk was \$1.20 per hundredweight to our people at their station in North Bangor. The milk from the province of Quebec did not go to North Bangor, but to Fort Covington, and they had to pay \$2.50 a day for a consular certificate every day besides. The farmer here has to suffer because of a lack of tariff on these products. The Fort Covington Creamery Company is really paying a higher price in Canada than they are here."

Comparison of prices in Franklin county, January, 1916:

		Per cwt.
	Franklin County Creamery Co., at Bangor.....	\$1 75
	Mutual Cream Co., at Burke.....	1 75
	Franklin Creamery Co., at Fort Covington.....	1 70
	Sheffield Farms, at Malone.....	1 75
1915		
August.	Franklin County Creamery Co., Bangor.....	1 25
	Mutual Cream Co., at Burke.....	1 40
	Sheffield Farms, at Malone.....	1 40
September.	Franklin County Creamery Co., at Bangor.....	1 35
	Mutual Cream Co., at Burke.....	1 50
	Franklin Creamery Co., at Fort Covington.....	1 35
	Sheffield Farms, at Malone.....	1 50
October.	Franklin County Creamery Co., at Bangor.....	1 50
	Mutual Cream Co., at Burke.....	1 70
	Franklin Creamery Co., at Fort Covington.....	1 45
	Sheffield Farms, at Malone.....	1 75
November.	Franklin County Creamery Co., at Bangor.....	1 65
	Mutual Cream Co., at Burke.....	1 85
	Franklin Creamery Co., at Fort Covington.....	1 55
	Sheffield Farms, at Malone.....	1 85
December.	Franklin County Creamery Co., at Bangor.....	1 85
	Mutual Cream Co., at Burke.....	1 85
	Franklin Creamery Co., at Fort Covington.....	1 65
	Sheffield Farms, at Malone.....	1 85

Seminole Condensed Milk Company, Holland Patent, prices, 1916:

	Per cwt.
January.....	\$1 80
February.....	1 75
March.....	1 68
April.....	1 45

Prices paid Fred Deck of Marcy by a milk distributor in the city of Utica, 1916, \$1.60 per 100 pounds, average, throughout the year.

H. T. Martinson of New York, prices paid at Holland Patent, 1916:

	Per cwt.
January.....	\$1 95
February.....	1 82
March.....	1 64
April.....	1 52
May.....	1 27
June.....	1 21

Harlem Dairy Products Company, prices at Clinton, N. Y.:

	Per cwt.
1915. October.....	\$1 75
November.....	1 85
December.....	1 85
1916. January.....	1 75
February.....	1 75
March.....	1 65
April.....	1 45
May.....	1 25
June.....	1 20
July.....	1 35
August.....	1 50
September.....	1 60

When delivered at Clinton station. At the Paris Hill Creamery the price is 5 cents per 100 pounds less than the Clinton prices. The Paris Hill station milk is separated and manufactured into cheese, except what is brought to Clinton.

Levy Dairy Company, prices at Bartlett, N. Y., 1916:

	Per cwt.
April.....	\$1 49
May.....	1 24
June.....	1 18
July.....	1 34
August.....	1 50

Model Dairy Company, Greenway, N. Y., 1916:

	Per cwt.
January.....	\$1 80
February.....	1 75
March.....	1 65
April.....	1 50
May.....	1 40 cooled 50 degrees or below. 1 30 otherwise.
June.....	1 30 cooled 50 degrees or below. 1 20 otherwise.
July.....	1 40 cooled 50 degrees or below. 1 30 otherwise.

Mr. Carver testifies, about one-half of the patrons get the 10 cents for cooling.

Dairymen's Cheese Factory prices in Westmoreland, Oneida county, paid Mr. Fleming, 1916, no test:

	Per cwt.
April.....	\$1 49
May.....	1 33
June.....	1 27

Price paid by Matti Brothers' Limburger Cheese Factory,
Oneida county, N. Y., 1916:

	Per cwt.
April.....	\$1 49
May.....	1 34
June.....	1 18

Middle States Creamery Company, Canisteo, N. Y., 1916:

	Per 40-quart can
January 1-15.....	\$1 55
January 16-31.....	1 50
February.....	1 45
March.....	1 40
April.....	1 25
May.....	1 15
June.....	1 05
July.....	1 15
August.....	1 30

Lloyd's Dairy Company, Verona Station; prices, 1916:

	Per cwt.
January.....	\$1 80
February.....	1 80
March.....	1 65
April.....	1 50
May.....	1 35
June.....	1 25
July.....	1 40
No butter fat test.	

Levy Dairy Company prices at Canisteo Station:

	Per 40-quart can
1915. June.....	\$1 00
July.....	1 10
August.....	1 20
September.....	1 20
October.....	1 35
November.....	1 45
December.....	1 45
1916. January.....	1 50
February.....	1 50
March.....	1 45
April.....	1 25
May.....	1 15
June.....	1 05
July.....	1 15
August.....	1 30

Beakes Dairy Company at Minnetto, prices. Barn score, 68; 10 cents less for lower score; 1915:

	Per cwt.
1915. January.....	\$1 75
February.....	1 65
March.....	1 60
April.....	1 45
May.....	1 30
June.....	1 30
July.....	1 30
September.....	1 45
October.....	1 60
December.....	1 80
1916. January.....	1 80
February.....	1 80
March.....	1 75
April.....	1 50
May.....	1 35
June.....	1 35
July.....	1 40
August.....	1 55

Queen City Dairy Company, Buffalo, 1915:

	Base price for 3.8 milk	Average price
1915. October.....	\$1 75	.....
November.....	1 90	\$1.798
December.....	1 95	1.965
1916. January.....	1 95	1.941
February.....	1 75	1.765
March.....	1 70	1.638
April.....	1 50, 3.5 milk	1.554
May.....	1 35	1.388
June.....	1 25	1.285
July.....	1 35	1.384
August.....	1 50	1.557
September.....	1 55	.....

Merrell-Soule Company, prices paid at Frewsburg, Chautauqua county. Three cents a point for every point above and a reduction of 3 cents for every point below the base price; 10 cents additional for 68 barn score:

	Per cwt.
1915. September.....	\$1 35 for 3.6 milk
October.....	1 60 for 4. milk
November.....	1 60 for 4. milk
December.....	1 70 for 4. milk
1916. January.....	1 70 for 4. milk
February 1-22.....	1 70 for 4. milk
February 22-28.....	1 60 for 3.8 base
March.....	1 60 for 3.8 base
April.....	1 45 for 3.5 base
May.....	1 25 for 3.5 base

	Per cwt.
1915. June.....	\$1 25 for 3.5 base
July.....	1 25 for 3.5 base
August 1-15.....	1 40 for 3.5 base
August 16-31.....	1 50 for 3.5 base
September.....	1 65 for 3.8 base
October.....	1 90 for 4. base

Mr. Beardsley, superintendent, testified: "Our April price was \$1.45 for 3.5 milk delivered at the plant. Barn score below 68. 3.5 base with 3 cents added or deducted for each point above or below butter fat test. Borden's price for April was \$1.45 for 3.5 milk, B grade. We paid \$1.55 for B grade and \$1.45 for C grade. We are in the 33 cent freight zone. I would not say because we do not ship any liquid milk. In May, we paid \$1.25 for 3.5 milk, C grade. In June, we paid \$1.25 for C grade, and \$1.35 for B grade. In July, we paid the same price as June. This Borden price is the published price. I understand they added to it. In August, we paid \$1.40 for the first 15 days, and \$1.50 for the next sixteen days. Where the score was 68, we paid \$1.50 and \$1.60. In September, our price was \$1.65 for 3.8 C grade; \$1.75 for B grade, 3.8 basis. In October, our price was \$1.90 for 4 per cent milk, C grade, \$2 for 4 per cent milk B grade. A man delivering us 4.4 milk in October, B grade, will get \$2.12. 4.5 milk same grade \$2.15. The 1st of September, 1915, we started the barn score system. Before that, it was on the butter fat basis. Most of our milk was C grade before that. Our object in establishing the B grade was to get into New York City with our produce, if we wanted to ship any excess. Up to that time we were never under New York City Board of Health regulations. We do not have to score more than 40 to get into New York, but in order to get the better conditions and to be able to get nearer the B grade product, we gave the 10 per cent. premium for all milk that scored 68. We make milk powder. The better the milk, the better the keeping qualities."

Mohawk Condensery Company prices at Sherman, Chautauqua county, N. Y., 4 per cent base, 3 cents a point for each point above or below 4. Not scored.



A typical East Side market scene, New York City

TO THE
ALABAMA

	Per cwt.	4 per cent milk test
May	\$1 45	4.1
June	1 45	4.1
July	1 45	4.2
August	1 60	4.3
September	1 80	....

Test of the Enos Dairy at this plant. (Minutes, page 6914.)

Mr. Enos, a patron, testified: "The average test in 1915 for five months of the dairies that went to this plant was 3.7. Some of the milk is shipped to Philadelphia. Most of it is condensed. Chautauqua county milk can get to Philadelphia, but not into New York under present conditions of traffic. Philadelphia milk distributors have collecting plants at Mayville, Hartfield stations and Summerdale. The Philadelphia Health Department does not carry on any inspection. The Supplee Company is a Philadelphia milk concern in this territory. When we were making prices with the Mohawk people, the superintendent of the Mohawk Factory informed us that there was no use of our taking up the price question with the Supplee people; that the Mohawk Condensed Milk Company established the price, and what they paid the Supplee Company would pay. E. J. Ballinger of Sherman told me that he had an arrangement to that effect with the Supplee people. He said the Supplee people phoned over and asked what price they were to pay for the ensuing month before they put out the price list. The Supplee people have stations at Hartfield and Summerdale. They go under the name of the Supplee-Alderney Dairy Company and are located in Philadelphia. The Philadelphia milk train leaves there in the afternoon between three and four o'clock and the train will reach Philadelphia the next morning for distribution."

Harold S. King of Machias, testified: "I formerly shipped our milk as baggage to dealers in Buffalo. We received 12, 14 and 15 cents per gallon. The retail price of milk in Buffalo was 7 cents per quart. In that Spring they raised the price in Buffalo to 8 cents per quart. The dairymen were inclined to think we ought to have some part of the increase, but they put the price down instead of raising it so we got 11, 13 and 15 cents a gallon and 15 cents only the last two months instead of four, but the company went into bankruptcy and is now re-organized. We do not ship to

Buffalo any more. We undertook to find other companies. There were at that time the Queen City and the People's Milk Company, but when we undertook to correspond with them, they told us they had decided not to buy any milk south of Arcadia; that our territory was well looked after by the Queen City and the milk train was gone. The Pennsylvania Railroad had taken the milk train off. The Merrell-Soule people have a plant at Arcadia and they are generally considered hereabouts a little lower than the Bordens. The best price that we ever had was at Buffalo. The milk companies put their price just a little bit higher than you can get at the cheese factory. The Queen City prices in six months averaged $2\frac{1}{2}$ cents less than the Sheffield plant. Sheffield Farms paid us, 1915, October, \$1.80; November, \$1.90, and December, \$1.90. 1916, January, \$1.80; February, \$1.75; March, \$1.60. They offered 25 cents advance in October, 1916."

Hornell Sanitary Dairy Company prices at Greenwood station, Steuben county. Barn score, 68; 10 cents less for C milk; 1916:

	Per cwt.
April.....	\$1 60
May.....	1 40
June.....	1 25
July.....	1 25
September.....	1 65

Highest price winter of 1915-16, \$1.80.

Newark Milk and Cream Company prices at Canisteo, 1916:

	Per cwt	Test
January.....	\$1 70	3.4
February.....	1 60	3.8
March.....	1 60	4.6
April.....	1 35	3.4
June.....	1 20	.....
July.....	1 30	.....
August.....	1 50	.....
September.....	1 70	.....

The above prices paid Potter Brothers.

George H. Crandall, dairyman, near Hornell, testifies that he sells his milk at 4 cents a quart the year round to milk sellers in the city.

Hoag Cheese Factory prices at Varysburg, Wyoming county, 1916:

	Per cwt.
September.....	\$1 75
October.....	2 10

Alexander Campbell Company's prices at Lowville station,
1916, B milk:

	Per cwt.
January	\$1 81
February	1 76
March	1 71
April	1 50
May	1 40
June	1 30
July	1 40
August	1 50
September	1 70

Henry Arnstein's prices, Lyons Falls station, 1916:

	Per cwt.
January	\$1 80
February	1 80
March	1 65
April	1 50
May	1 40
June	1 30
July	1 40

H. T. Michelson's prices at the Holland Patent Milk and Cream
station, Holland Patent, N. Y.; no butter test, B milk, 1915:

	Per cwt.
1915. November	\$2 00
December	2 00
1916. January	1 95
February	1 82
March	1 68
April	1 52
May	1 27
June	1 21
July	1 37
August	1 60
September	1 76

Henry Arnstein's prices at Remsen Milk and Cream Company
station, Remsen, N. Y., 1916:

	Per cwt.
April	\$1 45
May	1 35
June	1 20
July	1 35
August	1 50
September	1 65
October	2 05
November .....	.....

No butter fat test.

Roger Station, near Boonville, 1916:

	Per cwt.
April.....	\$1 40
May.....	1 35
June.....	1 30
July.....	1 35
August.....	1 50
September.....	1 65

Empire State Dairy Company prices at Dolgeville, N. Y., 1915:

	Per cwt.
October.....	\$1 75
November.....	1 85
December.....	1 85
1916. January.....	1 75
February.....	1 70
March.....	1 60
April.....	1 40
May.....	1 10
June.....	1 10
July.....	1 30
August.....	1 45
September.....	1 45

(Note.— Flat price based on 3.8 milk. Three cents per 100 pounds added or deducted for each point up or down. Ten cents additional for barns scoring 68.

Mr. Wheeler, station agent, testified: "In August the company wanted more milk and we bought milk from the Burrell Cheese Factory, five miles from Dolgeville. It was weighed at the factory and brought to us. Cheese was high and we had to pay a good price, \$1.55 at the factory, and our company drew it down."

Max Blum prices at the Middleville Cream Company's Co-operative station. Leased. No butter fat test. Flat price. 1915:

	Per cwt.
1915. April.....	\$1 55
May.....	1 40
June.....	1 30
July.....	1 40
August.....	1 60
September.....	1 70
October.....	1 90
November.....	2 00
December.....	2 10
1916. January.....	2 00
February.....	1 90
March.....	1 70

Modern Dairy Company prices at St. Johnsville Co-operative plant. Leased. 1916:

	Per cwt.
April.....	\$1 55
May.....	1 30
June.....	1 20
July.....	1 45
August.....	1 56
September.....	1 65

The contract for the remainder of the year was as follows:

November.....	\$2 05
December.....	2 05
January.....	2 00
February.....	1 95
March.....	1 85

Fort Plain Milk Company. John Salzman, called, testified:

"I live in Fort Plain; I am looking after all Fort Plain Milk Company's business. It is a co-operative corporation. We select the milk ourselves, send it to different places; we send some to Schenectady and to Williams in Albany. We have capital stock paid in of \$17,000. We have seven plants. All the stockholders were dairymen. We have seven directors and about 160 patrons. The patrons are not all stockholders. We have about 130 or 140 stockholders. One plant at Glover, one at Brookman's Corners, one at Sprout Brook and one at Stone Arabia. In the Spring of the year, we put out a price for six months that we pay the stockholders and everybody else. We are not running it as a co-operative plant, but buying it flat. The milk belongs to the company. At country stations it was 10 cents less than Fort Plain prices, as shown on the card. We have made a little money all along. We pay the patrons all alike, but the dairyman who hold stock has had 6 per cent on his money right along. We never declared more than 6 per cent. We have got quite a little surplus on our books. We paid all our debts for last year, \$5,000 last fall and \$5,000 in August. We made it out of this milk.

Mr. Ward.—It suggests itself to us that this might be a means of seriously hurting the tenant farmer. There has been some suggestion made to the Committee that the operations of your company where the owners of the farm owned the stock and the tenant did not, were to the detriment of the tenant farmer.

Mr. Salzman.—The Farm Bureau people have been looking into that and after they understood it, they felt a good deal better about it. Our debt is paid now and we propose in the future to give them all there is in it and just take the dividends on the investment. In August, we sold Brown & Bailey 40 cans for \$67.50 and 45 cans for \$74.25. The difference in price is made when we deliver it and when they drew it. The \$67.50 is for cans they drew from the station at Fort Plain. They came to the station and got 45 cans which were invoiced to them at \$67.50. We also drew 45 cans to them ourselves from Stone Arabia. We had no contract with Brown & Bailey. When they needed some, they got it. They paid so much a can. That is, they were paying us nearly \$2 per 100 pounds then for milk. We sold the skim milk to Max Blum to make bakers' cheese. We make the cheese for him. We sold him 5,500 pounds of skim milk for \$13.75 in August. August 31st we sold Jetter 60 cans of milk for \$96 f. o. b. Fort Plain. Two cans of 40 per cent cream, \$30 each; 2 cans of 20 per cent. cream, \$15. On September 2nd we sold 50 cans of milk to the Modern Dairy Company for \$85.

Mr. Ward.—If you have made these profits in your company, \$5,000 a year, say, I don't see why part of that has not come out of the tenant farm.

Mr. Salzman.—Why it certainly has, and it comes out of all of them, but if they have stock in it I don't see as it is any different. We put the money into the treasury of the company and it is the stockholders' money and their stock is worth so much more. The stockholders have had the benefit before, but after this the tenants will, too. Our prices for September are \$1.60 per 100 pounds.

Mr. Ward.—And you are really getting about \$2 from Brown & Bailey.

Mr. Salzman.—Well, pretty near that, I guess.

Mr. Ward.—Of course, these farms are largely occupied by tenant farmers on shares.

Mr. Salzman.—There are quite a few.

Mr. Ward.—And if this practice persisted long enough it would make every tenant farmer avoid the neighborhood, would it not?

Mr. Salzman.—No, sir; oh, no; our debt is paid now. From now on they share in with the rest.

Mr. Ward.—You mean you are not going to try to make large profits any longer?

Mr. Salzman.—Our debt is paid.

Mr. Ward.—What?

Mr. Salzman.—Our debt is paid. We don't owe anyone any money. We will put in the price next month of \$2.10 and the tenant gets just as much as the man who owns the farm.

Mr. Ward.—Your July price was \$1.20 per 100 pounds flat. Borden's July price was \$1.25 per 100 pounds for 3.3 milk. Your June price was \$1.05 per 100 pounds, and Borden's June price was paid at \$1.09. Your price for May was \$1.10, and Borden's price for B milk 3.3 was \$1.15. Your price for April was \$1.30 for 100 pounds and Borden's price was \$1.40 per too pounds.

Mr. Salzman.—Yes. I was selling our milk to Brown & Bailey at Canajoharie. They take all of our surplus. They are to give us \$2.10 per 40-quart can through October. I have had no talk with them about what they should pay for November or December. When we started our company owed \$10,000 and we put in \$5,000 for repairs. We paid the \$10,000 mortgage and all our debts. We made \$10,000 on \$18,000 of stock. We handle a lot of milk."

Central Dairy Company's prices at Randall, Montgomery county, 1915:

	Per cwt.
October.....	\$1 55
November.....	1 70
December.....	1 70
1916. January.....	1 80
February.....	1 70
March.....	1 60
April.....	1 40
May.....	1 30
June.....	1 20
July.....	1 30
August.....	1 45
September.....	1 60

Prices paid by Charles M. Smith at Fort Plain, N. Y., 1915:

	Per cwt.
April.....	\$1 25
May.....	1 00
June.....	1 00
July.....	1 00
August.....	1 25
September.....	1 35
October.....	1 75
November.....	1 80
December.....	1 80
1916. January.....	1 80
February.....	1 70
March.....	1 60
April.....	1 30
May.....	1 10
June.....	1 05
July.....	1 20
August.....	1 50
September.....	1 60

LaGrange Creamery Association, Poughkeepsie, N. Y., butter fat prices, 1916:

April.....	37 cents per pound
May.....	33 cents per pound
June.....	32 cents per pound
July.....	33 cents per pound
August.....	34 cents per pound
September.....	35 cents per pound
October.....	37 cents per pound

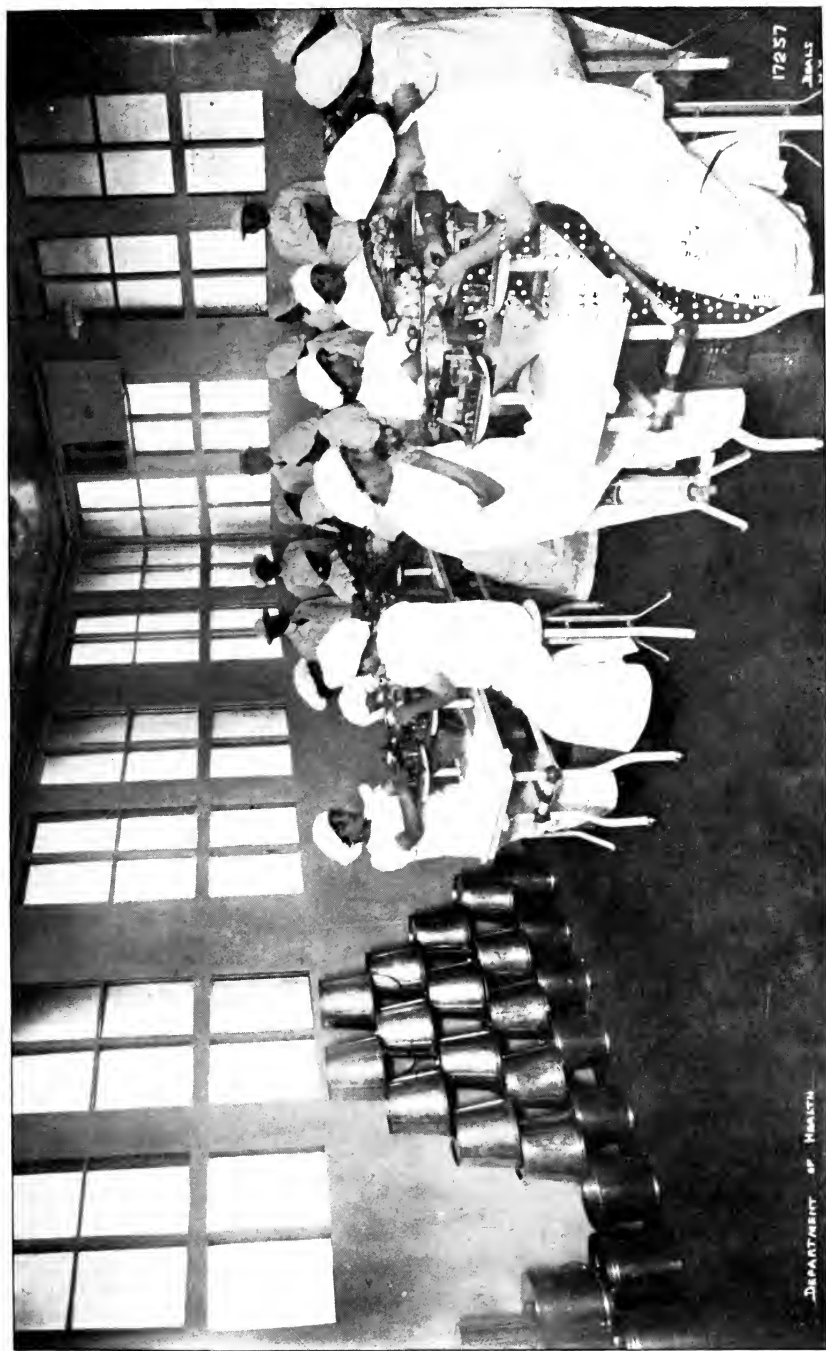
Locust Farms Company prices at Verbank shipping station, Dutchess county, 1916:

	Per cwt.
April.....	\$2 06
May.....	1 81
June.....	1 75
July.....	1 96
August.....	2 12
September.....	2 21

These prices are for 5 per cent milk. Mr. Olmsted testifies: "Three cents is taken off these prices for each point below 5 per cent butter fat. Most of our dairies average 3.6 and 3.8 per cent. The barns are scored. No C milk."

Mutual McDermott Dairy Corporation prices at Millbrook, Dutchess county, N. Y., for 3.3 milk, 1916:

	Per cwt.
April.....	\$1 40
May.....	1 15
June.....	1 09
July.....	1 35
August.....	1 51
September.....	1 60



Egg breaking, New York City, under perfect sanitary conditions



Albert C. Ogden, retail milk dealer in Middletown, prices paid dairymen, 1916:

	Per cwt.
April.....	\$1 70
May.....	1 40
June.....	1 25
July.....	1 60
August.....	1 76
September.....	1 85

Price based on 3.8 per cent milk. Three cents deducted or added for each point of butter fat above 3.8 per cent.

Levy Dairy Company prices at Edmeston, 1916:

	Per cent
April.....	\$1 39
May.....	1 14
June.....	1 08
July.....	1 34
August.....	1 50
September.....	1 59

Ten cents added for the first three months.

Standard Dairy Company prices, Moravia, Cayuga county, N. Y., 1916:

	Per 40 quart can
January.....	\$1 50
February.....	1 45
March.....	1 40
April.....	1 25
May.....	1 10
June.....	1 05
July.....	1 15
August.....	1 28
September.....	1 40

Brighton Place Dairy Company prices at Metcalfe, N. Y.

R. S. COGSWELL, called before the Committee, testified:

"I am manager of the Brighton Place Dairy Company's milk and cream plant at Metcalfe. Metcalfe is about ten miles from Oswego. We have an established price that we pay on contract. We got about 150 dairies. We pay the same price to all. We are paying a higher price per 100 pounds during the winter months, but at the same time we paid the higher price we raised the test. Prices, 1916: April, \$1.60 per hundredweight, 3.8 per cent. butter fat; May, \$1.30, 3.8 per cent. We had to pay the transportation on the goods at Metcalfe and at Rochester it was delivered f. o. b.

In May, at the Brighton plant, we paid \$1.36 per 100 pounds of 3.8 milk with a deduction of three cents for each point below 3.8. The May price at Metcalfe was \$1.25 per hundredweight of 3.6 butter fat.

Mr. Ward.— If we take off three points from the 3.8 we take off six cents

Mr. Cogswell.— Yes, sir.

Mr. Ward.— That brings the Brighton price of \$1.30 down to \$1.24?

Mr. Cogswell.— Yes, sir.

Mr. Ward.— While in Metcalfe you paid \$1.25 for 3.6 milk, which was one cent more than you were paying for 3.6 milk in Rochester.

Mr. Cogswell.— That is right. That left 3.6 milk at Brighton \$1.24 for May, and 3.6 milk at Metcalfe \$1.25 for May. Our October price for 3.8 milk at Metcalfe is \$2, and our October price at Brighton is \$2.15 for 4.0 milk; and our October price at Metcalfe is \$2 for 3.8 milk.

Big Elm Dairy Company prices at Avon, Monroe county, \$1.86 per 100 pounds f. o. b. Rochester, throughout the year.

Prices received by Frank D. Cullinan, dairyman at Avon, from Rochester milk dealers. Mr. Cullinan testified:

“ I sell my milk by the year, ship it to peddlers in Rochester. Four cents for six months and four and one-half cents for six months. I have to pay the freight to Rochester; it costs about one and one-half cents a gallon.”

McLaury Farm prices, Otsego county.

CHARLES D. McLAURY, called before the Committee, testified:

“ We have got 2,980 acres of land between Milford and Oneonta on the Susquehanna river, and between three and four hundred cows. We have a milk station on the farm. We only ship our own milk from our own station; we do not buy any. We sell our milk to the Sheffield Farms, Slawson-Decker Company. We have some registered cattle, but principally grades. Had all thoroughbreds

once, but don't have so many now. We have been selling our milk for eight years, shipping direct. Our farms are operated in ten parcels. We do not use the tenant system; we hire the help and work them ourselves. My son and brother and I are in partnership. We have a central receiving station on farm No. 2, half way between Milford and Portlandville; we built it ourselves; we have a separator in there and can make cheese or butter. The station cost to build and equip about \$2,000. It has been inspected and certified by the Board of Health of the City of New York. They gave us 95 per cent. score last time on barns, equipment and everything. We have no written contract with the Sheffield Farms people. We just send them down the milk and every 30 days they send us a check for it. I don't know what we are going to get for our milk this month. We ship it in 40-quart cans. We cool it down to 45. It is brought from the farms at 50. Then we put it in the cans and ship it to New York. I don't know what the Sheffield Farms are doing with our milk now, but they at one time had a contract with one or two hospitals in New York and it went direct to those hospitals. The hospitals sent their doctors up here and went through our plant and had our cows tested and so on, before they accepted it. All our cows on these ten farms have been tubercular tested. We are selling our milk for grade B; we don't call it certified milk.

"Our milk averaged \$1.75 a hundred pounds for the first seven months of this year. That was January to July. We have no contract now. The first two or three years we did business with them we had a verbal agreement. We got fifteen cents a hundred-weight above the New York Milk Exchange quotations. We ship all the year 'round.

"Of course, we have to pay all the expense of maintaining this shipping station and the help in it so that the price we receive for our milk is f. o. b. the cars at the station in shape acceptable to the New York health authorities. The \$1.75 under that situation is not high; it is low. However, we are satisfied with that price. If we were not, we would not accept it. They furnish the cans. We have never had a can of milk condemned nor a can thrown out since we shipped to New York. We shipped to Washington quite a little while but we find New York a more satisfactory

market. We got our pay regularly and we are satisfied with it. The highest we shipped in the seven months was 90 cans, and the lowest 55 cans per day. I can tell you what our checks came to for the seven months.

January	\$2,725 00
February	2,476 00
March	3,104 00
April	3,519 00
May	3,509 00
June	3,239 00
July	2,891 00

The station labor is fairly charged at \$40 a month, besides the board.

"We run a store and buy our stuff at wholesale and I figure at wholesale prices it costs me about \$1.97 a week for board per head. That is the actual cost of food. The labor of a man and his wife is not included or lodging. Probably that should be figured at \$15 a month, so that the labor would cost us, in the station, \$68 a month. That should be taken out of the receipts to cover station labor. I know what I paid out for labor for that milk, as follows:

January	\$840 00
February	890 00
March	990 00
April	1,090 00
May	1,090 00
June	1,090 00
July	1,270 00
August	1,160 00

Grain

January	\$682 10
January	265 90
January	265 07
February	692 50
February	605 00
March	141 00
March	64 00
April	162 00
April	668 50
April	277 00
May	736 00
May	200 00
June	713 00
June	162 00
July	572 00

Our investment, land, equipment and stock will be worth \$90,000.

"The fertilization by manure will just about pay for depreciation of buildings and farm. We do not figure our labor in the labor cost. We didn't pay any income tax in 1915; we didn't show up enough so we had to pay any tax."

One Farmer's Views

Mr. McLaury.—I will tell you what I think if you want me to tell you. The State sent out men a few months ago and I went myself some of the time to try to tell the people how to get \$2 for \$1 and how they could grow two blades of grass where they were growing one, and how they could get two ears of corn where they were getting one, and they knew all that before, but if the State had sent out men telling them where they could sell their products to better advantage instead of trying to teach them to raise so much that they couldn't sell, it would have been a great deal better for the farmer, and if this Committee now can tell us as farmers how we can dispose of our product to better advantage, we will be very much pleased and thank you very much, and are willing to pay something.

Now, I want to say something further. The great trouble is, everybody else has got a commission. The railroad has got a commission and they go on and figure up so much for equipment, wear and tear and expense and labor, and then they say, you can raise your freight tariff to such a price in order to make a profit. The farmer hasn't any commission. If you will appoint a commission to handle the milk product for us farmers and fix the price so we can make a profit the same as other corporations, we will be satisfied and you will be doing us a great favor. We will appreciate that. We will raise the products for you. You haven't got to tell us how to grow corn or grow oats or make milk; we know how to begin with. We have been at it from the cradle up and that is where the State is on the wrong end of it. If you will tell us what to do with the stuff we raise, that is where we are up against it.

Mr. Ward.—So you consider the problem one of marketing?

Mr. McLaury.—Yes, sir.

Mr. Ward.—I think, perhaps, this Committee has reached the same conclusion that the remedy must come through more efficient and more economical methods of marketing. Of course, it is of advantage to the State to have an abundant supply of milk at a reasonable price within the reach of the inhabitants of the cities and country, too.

Mr. McLaury.—Our farms are producing too much. We are making too much milk. Consequently, we have to have a bigger outlet for it.

Mr. Ward.—Milk is scarce to-day.

Mr. McLaury.—Then make a commission and fix the price. If it is scarce we are certainly entitled to the advantage of that market.

Then if you will educate the farmers so that they can organize, form organizations like the Grange, and buy the feed as cheap as any other man.

Phoenix Cheese Company prices at West Exeter, Otsego county, N. Y., manufacturers of limburger cheese, Swiss cheese, neuf-chatel cheese, pot cheese and Gouda cheese. W. Frank Stewart testified:

“Gouda cheese is not quite so hard at Edam; weighs seven or eight pounds, made of whole milk; takes about twelve pounds of milk to make a pound of Gouda cheese. Ours are shipped to New York and from there to South Africa. It takes from seven to eight pounds of milk to make a pound of limburger. It may run as high as ten pounds. It takes fourteen to sixteen pounds of milk to make a pound of Swiss cheese. We buy by the hundred. Our prices were as follows, we make the price the first of the month and post it in the factory:

	Per cwt
1916. April.....	\$1 45
May.....	1 20
June.....	1 20
July.....	1 25
August.....	1 45
September.....	1 55

“That is a flat price without any butter fat test or dairy score. This price is for milk delivered at the station.”

COMPARATIVE PRICES

Merrell-Soule Company's prices for five years at Arcade, Wyoming county, and Frewsburg, Cattaraugus county:

MERRELL-SOULE CO.

Manufacturers of Food Products

Syracuse, N. Y.

We give you below the prices paid by our Company for the last five years to the farmers from whom we purchased milk in the State of New York. These prices are the prices actually returned to the farmers regardless of whether the milk was delivered at our plant by them, or whether it was hauled in by our own teams. As near as we can figure 98 per cent. of the milk was hauled in by our teams and 15 cents cwt. would be a fair estimate of the cost of hauling. Therefore, considering the milk as delivered by the farmers 15 cents should be added to the prices given below.

In June, 1915, we began paying a premium of 10 cents cwt. for milk from barns scoring 68 or better. This premium is included in the average prices given below. At two of our plants we were, during practically this entire period, purchasing the milk on a flat basis and at two on a butterfat basis. The figures given below are the actual prices paid for the milk, although at plants where we were buying on a butterfat basis some of the the farmers, of course, got less and others more than the prices stated.

We trust that these figures are the figures you desire for your report.

	1912	1913	1914	1915	1916	
January.....	\$1.70	\$1.797	\$1.743	\$1.70	\$1.75	
February....	1.60	1.70	1.50	1.60	1.75	Jan. 31 to Feb. 20
					1.65	Feb. 21 to Feb. 28
March.....	1.345	1.496	1.40	1.457	1.626	
April.....	1.30	1.354	1.195	1.25	1.476	
May.....	1.143	1.176	1.093	1.25	1.226	
June.....	1.00	1.154	1.05	1.29	1.228	
July.....	1.20	1.255	1.20	1.301	1.229	
August.....	1.299	1.304	1.248	1.316	1.431	
September...	1.403	1.458	1.45	1.311	1.50	
October.....	1.55	1.66	1.603	1.62	2.241	
November...	1.774	1.814	1.705	1.624	2.327	
December....	1.812	1.827	1.708	1.724	2.323	

Yours truly,

MERRELL-SOULE CO.,

(Signed) O. F. Soule,
Treasurer.

R. H. Stevens Company's prices at West Danby shipping station, 1915:

	Per can of 40 quarts
January.....	\$1 55
February.....	1 45
March.....	1 35
April.....	1 10
May.....	1 00
June.....	1 00
July.....	1 10
August.....	1 20
September.....	1 35
October.....	1 50
November.....	1 70
December.....	1 70

Co-operative milk station prices at Adams Center, Jefferson county, N. Y.; station now operated by Libby-McNeil Company:

Prices paid per cwt.						
	1911	1912	1913	1914	1915	1916
January.....	\$1.75	\$1 87	\$1 75	\$1 85	\$1 80	\$1 85
February.....	1 57	1 81	1 75	1 85	1 60	1 70
March.....	1 34	1 51	1 53	1 60	1 60	1 60
April.....	1 10	1 40	1 47	1 25	1 35	1 45
May.....	1 04	1 28	1 41	1 20	1 30	1 40
June.....	99	1 16	1 25	1 25	1 30	1 35
July.....	1 11	1 34	1 40	1 30	1 45	.....
August.....	1 29	1 46	1 60	1 40	1 45	.....
September.....	1 34	1 46	1 80	1 60	1 45	.....
October.....	1 58	1 58	1 80	1 70	1 65	.....
November.....	1 82	1 84	1 90	1 80	1 68	.....
December.....	1 87	1 99	1 90	1 90	1 85	.....
	<u>\$1 40</u>	<u>\$1 56</u>	<u>\$1 63</u>	<u>\$1 56</u>	<u>\$1 54</u>	<u>.....</u>

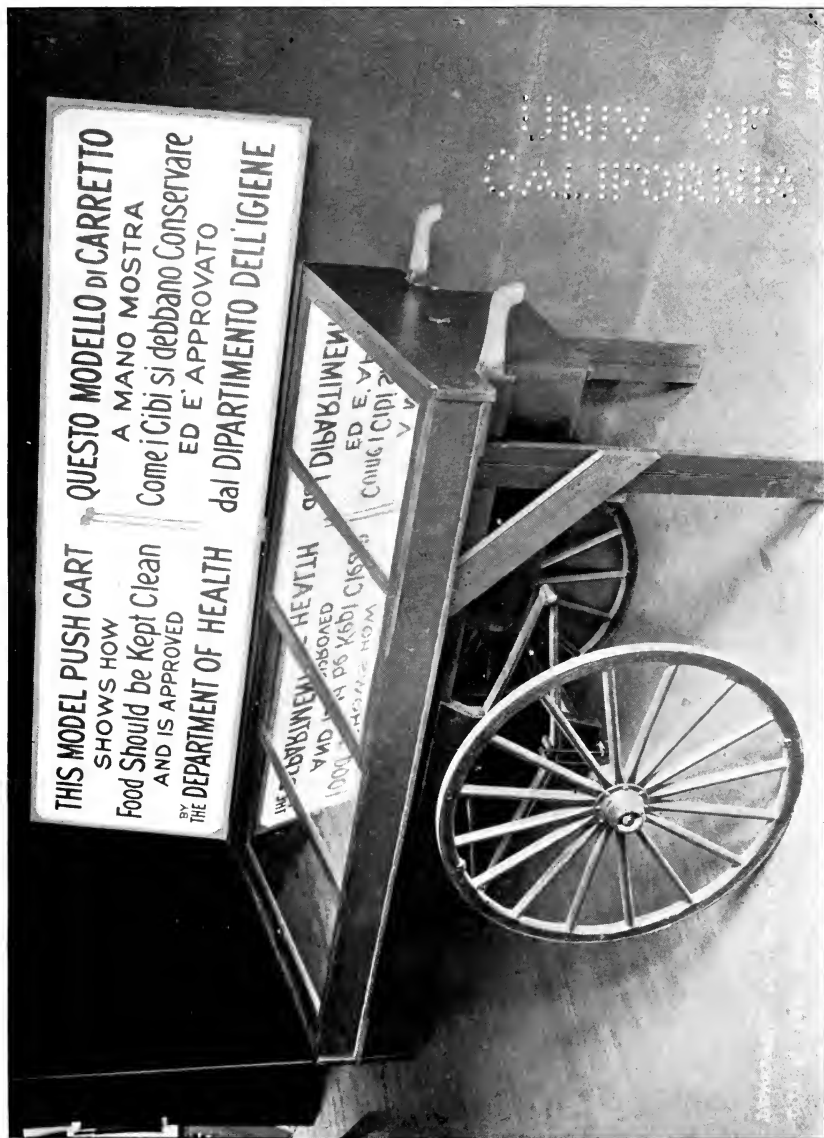
Seminole Condensary, Holland Patent, N. Y.:

	1913	1914	1915	1916
January.....	\$2 00	\$1 90	\$1 95	\$1 80
February.....	1 85	1 80	1 90	1 75
March.....	1 76	1 80	1 80	1 68
April.....	1 81	1 75	1 58	1 45
May.....	1 58	1 50	1 30	1 35
June.....	1 58	1 40	1 24	1 25
July.....	1 58	1 55	1 40	1 45
August.....	1 74	1 70	1 56	....
September.....	1 81	1 85	1 65	.....
October.....	1 85	1 90	1 80	.....
November.....	1 95	2 00	1 90	.....
December.....	1 95	2 05	1 95	.....

EXHIBIT NO. 96

PRICE PAID PER HUNDRED POUNDS MILK BY McDERMOTT DAIRY COMPANY, CANTON, N. Y., FROM APRIL 1, 1907, TO MARCH 31, 1911, AND BY THE STATE SCHOOL DAIRY INDUSTRY FROM JANUARY 1, 1912, TO JULY 1, 1916.

January, 1907.....	.....	February, 1907.....	.....
January, 1908.....	\$2 00	February, 1908.....	\$1 80
January, 1909.....	1 75	February, 1909.....	1 75
January, 1910.....	2 00	February, 1910.....	1 90
January, 1911.....	2 10	February, 1911.....	1 80
January, 1912.....	1 797	February, 1912.....	2 212
January, 1913.....	1 853	February, 1913.....	1 49
January, 1914.....	1 874	February, 1914.....	1 741
January, 1915.....	1 883	February, 1915.....	1 787
January, 1916.....	1 859	February, 1916.....	1 777



New York City is working hard to provide clean fruit and vegetables. The above is a model push cart

TO THE
MEMBERS OF THE
LEGISLATIVE COUNCIL

EXHIBIT No. 96 — (Continued)

March, 1907.....		August, 1907.....	1 15
March, 1908.....	1 60	August, 1908.....	1 15
March, 1909.....	1 55	August, 1909.....	1 15
March, 1910.....	1 60	August, 1910.....	1 50
March, 1911.....	1 55	August, 1911.....	.....
March, 1912.....	1 60	August, 1912.....	1 549
March, 1913.....	1 608	August, 1913.....	1 676
March, 1914.....	1 693	August, 1914.....	1 394
March, 1915.....	1 714	August, 1915.....	1 451
March, 1916.....	1 70	August, 1916.....	.....
April, 1907.....	1 20	September, 1907.....	1 25
April, 1908.....	1 20	September, 1908.....	1 25
April, 1909.....	1 20	September, 1909.....	1 25
April, 1910.....	1 40	September, 1910.....	1 60
April, 1911.....	.....	September, 1911.....	.....
April, 1912.....	1 349	September, 1912.....	1 675
April, 1913.....	1 526	September, 1913.....	1 90
April, 1914.....	1 376	September, 1914.....	1 517
April, 1915.....	1 363	September, 1915.....	1 543
April, 1916.....	1 47	September, 1916.....	.....
May, 1907.....	1 05	October, 1907.....	1 70
May, 1908.....	1 05	October, 1908.....	1 55
May, 1909.....	1 05	October, 1909.....	1 80
May, 1910.....	1 15	October, 1910.....	1 80
May, 1911.....	.....	October, 1911.....	.....
May, 1912.....	1 247	October, 1912.....	1 753
May, 1913.....	1 276	October, 1913.....	1 969
May, 1914.....	1 24	October, 1914.....	1 534
May, 1915.....	1 164	October, 1915.....	2 025
May, 1916.....	1 226	October, 1916.....	.....
June, 1907.....	1 00	November, 1907.....	1 90
June, 1908.....	1 00	November, 1908.....	1 75
June, 1909.....	1 00	November, 1909.....	1 90
June, 1910.....	1 10	November, 1910.....	1 90
June, 1911.....	.....	November, 1911.....	.....
June, 1912.....	1 104	November, 1912.....	1 874
June, 1913.....	1 126	November, 1913.....	2 075
June, 1914.....	1 083	November, 1914.....	1 968
June, 1915.....	1 068	November, 1915.....	2 025
June, 1916.....	1 177	November, 1916.....	.....
July, 1907.....	1 10	December, 1907.....	2 00
July, 1908.....	1 10	December, 1908.....	1 75
July, 1909.....	1 10	December, 1909.....	2 00
July, 1910.....	1 20	December, 1910.....	2 10
July, 1911.....	.....	December, 1911.....	.....
July, 1912.....	1 249	December, 1912.....	1 917
July, 1913.....	1 277	December, 1913.....	1 957
July, 1914.....	1 226	December, 1914.....	1 980
July, 1915.....	1 255	December, 1915.....	2 045
July, 1916.....	.....	December, 1916.....	.....

EXHIBIT NO. 82

ROSEMARY CREAMERY, ADAMS, N. Y., A. R. HEATH, ADAMS CENTER, N. Y.

Prices Paid for Milk for Series of Years to Patrons

	1912	1913	1914	1915	1916
January.....	\$1 85	\$1 76	\$1 80	\$1 78	\$1 85
February.....	1 80	1 65	1 70	1 70	1 70
March.....	1 62	1 65	1 60	1 58	1 60
April.....	1 52	1 49	1 40	1 35	1 50
May.....	1 30	1 35	1 30	1 30	1 40
June.....	1 18	1 25	1 25	1 30	1 35
July.....	1 47	1 40	1 30	1 45	.....
August.....	1 52	1 55	1 40	1 45	.....
September.....	1 52	1 75	1 60	1 45	.....
October.....	1 65	1 78	1 70	1 60	.....
November.....	1 94	1 90	1 80	1 73	.....
December.....	2 00	1 90	1 90	1 85	.....
Average 12 months.....	<u>\$1 61</u>	<u>\$1 62</u>	<u>\$1 56</u>	<u>\$1 55</u>	<u>.....</u>

EXHIBIT NO. 102

BEAKE'S DAIRY COMPANY, MASSENA, N. Y.—PRICES 1910-1916

Statement of Prices Paid for Milk

Month	1910	1911	1912	1913	1914	1915	1916
Jan....	1 85	1.65-55	1.80	1.70	1.75	1.75-70	1.80
Feb....	1.80	1.55-45	1.80-70	1.70	1 60	1.60	1.80-70
Mar....	1 70	1 65	1 60	1 55	1 50-45	1 55	1 70-60
Apr....	1.55-45	1 15	1 45-35	1 45	1 25-15	1 40	1 45
May....	1 25	1 15	1 35	1 20	1 05	1 20-15	1 30
			1 25-20				
June....	1.25	95	1 05	1 05	95	1 15	1 15
July....	1 30-35	95	1 05-20	1 05-15	1 15	1 15	.....
Aug....	1 35-45	1 05-15	1 25	1 30	1 25-30	1 25	.....
Sept....	1 45	1 25	1 35-45	1 45-55	1 45-50	1 35	.....
Oct....	1 45-55	1 40	1 45	1 55-65	1 60-65	1 35	.....
Nov....	1 55-65	1 55-65	1 60-70	1 75	1 75	1 60-70	.....
Dec....	1 65	1 75	1 80	1 75	1 75	1 70	.....

Herring Dairy, Gouverneur, St. Lawrence county, N. Y.
Average price per hundredweight received in factory and milk station:

1902.....	\$0 98	1909.....	\$1 36
1903.....	1 06	1910.....	1 50
1904.....	76	1911.....	1 23
1905.....	1 00	1912.....	1 55
1906.....	1 05	1913.....	1 45
1907.....	1 21	1914.....	1 45
1908.....	1 23	1915.....	1 45

Lowville Milk and Cream Company: Price Record 1902-1916,
per hundredweight:

1902		1903	
February.....	\$1 29	January.....	\$1 41
March.....	1 20	February.....	1 37
April.....	1 05	March.....	1 24
April.....	1 05	April.....	1 12
May.....	1 11	May.....	98
June.....	1 00	June.....	94
July.....	99	July.....	1 02
August.....	1 03	August.....	1 12
September.....	1 17	September.....	1 12
October.....	1 25	October.....	1 29
November.....	1 29	November.....	1 41
December.....	1 53	December.....	1 65
1903		1907	
January.....	1 41	January.....	1 65
February.....	1 41	February.....	1 41
March.....	1 32	March.....	1 25
April.....	1 24	April.....	1 20
May.....	1 12½	May.....	1 12
June.....	1 04½	June.....	1 06
July.....	1 03	July.....	1 12
August.....	1 05	August.....	1 34
September.....	1 18	September.....	1 35
October.....	1 15	October.....	1 65
November.....	1 18	November.....	1 76
December.....	1 29	December.....	1 76
1904		1908	
January.....	1 24	January.....	1 76
February.....	1 18	February.....	1 53
March.....	1 18	March.....	1 41
April.....	1 06	April.....	1 24
May.....	63	May.....	1 00
June.....	70	June.....	94
July.....	81	July.....	1 06
August.....	1 10	August.....	1 06
September.....	94	September.....	1 24
October.....	1 12	October.....	1 53
November.....	1 35	November.....	1 69
December.....	1 53	December.....	1 76
1905		1909	
January.....	1 41	January.....	1 72
February.....	1 35	February.....	1 47
March.....	1 24	March.....	1 41
April.....	1 12	April.....	1 24
May.....	97	May.....	1 02
June.....	82	June.....	94
July.....	1 00	July.....	1 18
August.....	1 06	August.....	1 35
September.....	1 06	September.....	1 53
October.....	1 18	October.....	1 65
November.....	1 26	November.....	1 80
December.....	1 41	December.....	1 88

1910		July		1 21
January	1 82	August		1 35
February	1 76	September		1 46
March	1 65	October		1 69
April	1 45	November		1 85
May	1 18	December		1 93
June	1 19			
July	1 41	1912		
August	1 53	January		1 93
September	1 65	February		1 82
October	1 81	March		1 53
November	1 81	April		1 41
December	1 93	May		1 29
		June		1 29
1911		July		1 41
January	1 76	August		1 53
February	1 65	September		1 58
March	1 29	October		1 70
April	1 12	November, grade C		1 81
May	1 06	December, grade B		1 93
June	1 06			

1913	Grade B	Grade C
January	\$1 81	\$1 70
February	1 76	1 65
March	1 53	1 41
April	1 53	1 41
May	1 29	1 18
June	1 29	1 19
July	1 29	1 19
August	1 58	1 48
September	1 68	1 58
October	1 78	1 68
November	2 05	1 95
December	2 05	1 95
1914		
January	1 90	1 80
February	1 75	1 65
March	1 65	1 55
April	1 40	1 30 for 3.8 milk
April	1 50 better than 3.8	....
May	1 25 better than 3.8	....
May	1 15 below 3.8	1 05
June	1 25 better than 3.8	....
June	1 15 below 3.8	1 05
July	1 35, 3.8 or better	....
July	1 25 below 3.8	1 15
August	1 40, 3.8 or better	....
August	1 30 below 3.8	1 20
September	1 68	1 58
October	1 78	1 68
November	2 05	1 95
December	2 05	1 95
1915		
January	1 90	1 80
February	1 75	1 65
March	1 75	1 65
April	1 53	1 43
May	1 67	1 57
June	1 52	1 42

1915	Grade B	Grade C
July.....	\$1 44	\$1 34
August.....	1 31	1 21
September.....	1 40	1 30
October.....	\$1 42*	
November.....	1 91	1 81
December.....	1 91	1 81
1916		
January.....	\$1 81	\$1 71
February.....	1 76	1 66
March.....	1 71	1 61
April.....	1 50	1 40
May.....	1 40	1 30
June.....	1 30	1 20
July.....	1 40	1 30
August.....	1 50	1 40
September.....	1 70	1 60

Comparative Prices Paid at Lyons Falls

	1912	1913	1914	1915	1916
August.....	\$1 60	\$1 60	\$1 40	\$1 40	\$1 50
September.....	1 60	1 70	1 60	1 50	1 70
October.....	1 85	1 85	1 80	1 60	.....
November.....	1 95	1 90	1 90	1 80	.....
December.....	2 00	2 00	1 90	1 90	.....
January.....	.....	1 90	1 85	1 80	1 80
February.....	.....	1 90	1 75	1 70	1 80
March.....	.....	1 65	1 60	1 55	1 65
April.....	.....	1 48	1 40	1 35	1 50
May.....	.....	1 36	1 20	1 30	1 40
June.....	.....	1 30	1 15	1 40	1 30
July.....	.....	1 42	1 30	1 40	1 40

Mr. William H. Dewey testified: "This was a co-operative company, but Mr. Arnstein took over the stock somewhere along about October, 1913. You will notice the difference in the prices as soon as Arnstein gets the contract, viz: November, 1912, \$1.95; November, 1913, \$1.90; November, 1914, \$1.90; November, 1915, \$1.80, etc.

Then Zellner leased the station. You will notice the difference. Take the month of October, for instance. Under Zellner, 1915, it was \$1.85; 1913, \$1.85. Then Arnstein got it; 1914, \$1.80; 1915, \$1.60. The co-operative station kept the price up until we lost it.

* NOTE.—The price \$1.42 for October, 1915, occurred by reason of milk dealers' contract terminating and the company manufacturing cheese.

The Mutual-McDermott Dairy Corporation gives us the following table of prices paid for milk at four type stations in the following localities: Burke, Franklin county; Canton, St. Lawrence county; Deposit, Delaware county, and Montgomery, Orange county, for the years 1912-1916:

- X — 3c per 100 lbs. additional for each 1-10% of butter fat over 3%
 O — 3c per 100 lbs. additional for each 1-10% of butter fat over 3.3%
 Z — 3c per 100 lbs. additional for each 1-10% of butter fat over 3.7%
 S — 10c per 100 lbs. additional for milk testing 3.7% butter fat or better

1912	Burke	Canton	Deposit	Montgomery
January.....	\$1 85	\$1 70	\$2 00	\$1 85
February.....	1 75	1 55	1-15 2 00	1 80
February.....	.....	.....	16-29 1 88	.....
March.....1-15	1 60	1 40	1 76	1 65
March.....16-31	1 50	.....	.....	.....
April.....	1 40	1 35	1 64	1 50
May.....	1 30	1 10	1 53	1 25
June.....	1 15	1 20	1 41	1 10
July.....1-15	1 20	1 25	1-15 1 41	1 30
July.....16-19	1 25	.....	16-31 1 64	.....
July.....20-31	1 40	.....	.....	.....
August.....1-15	1 40	1 40	1 64	1 70
August.....16-31	1 50	.....	.....	.....
September.....	1 60	1 55	1 64	1 70
October.....	1 70	1 70	1 76	1 80
November.....	1 80	1 85	1-10 1 88	1 90
November.....	.....	.....	11-30 2 00	.....
December.....	1 90	1 90	2 11	1 90

1913	Burke	Canton	Deposit	Montgomery
January.....	\$1 80	\$1 80	\$1 88	\$1 85
February.....	1 75	1 55	1 88	1 75
March.....	1 60	1 50	1 76	1 70
April.....	1 45	Z 1 50	1-10 1 76	Z 1 60
April.....	.....	.....	11-30 1 64	.....
May.....	1 30	Z 1 25	1 53	Z 1 35
June.....	1 25	Z 1 10	1 41	Z 1 20
July.....	1 35	Z 1 35	1-15 1 41	Z 1 55
July.....	.....	.....	16-31 1 64	.....
August.....	1 45	Z 1 45	1 64	Z 1 65
September.....	1 70	Z 1 60	1 64	Z 1 75
October.....	1 85	Z 1 85	Z 1 96	Z 1 95
November.....	1 90	Z 1 95	Z 1 95	Z 1 95
December.....	1 90	Z 1 95	Z 1 90	Z 2 05

* Figures indicate prices actually paid to patrons, including the premiums.

1914	Burke	Canton	Deposit	Mont- gomery
January	\$1 85	Z \$1 85	Z \$1 85	Z \$1 90
February	1 75	Z 1 70	Z 1 75	Z 1 90
March	1 55	Z 1 65	Z 1 70	Z 1 75
April	1 35	Z 1 30	Z 1 40	S 1 45
May	1 15	Z 1 05	Z 1 15	S 1 20
June	1 10	Z 1 00	Z 1 10	S 1 15
July	1 25	Z 1 15	Z 1 30	S 1 30
August	1 40	Z 1 30	Z 1 45	S 1 45
September	1 65	Z 1 40	Z 1 55	S 1 55
October	1 75	Z 1 80	Z 1 85	1 85
November	1 85	Z 1 80	Z 1 90	1 95
December	1 95	Z 1 90	Z 1 90	1 95

1915				
January	1 80	Z 1 85	Z 1 85	S 1 90
February	1 70	Z 1 75	Z 1 75	S 1 80
March	1 60	Z 1 70	Z 1 70	S 1 75
April	1 40	X 1 21	Z 1 35	X 1 31
May	1 35	X 96	Z 1 10	X 1 06
June	1 40	X 90	Z 1 05	X 1 00
July	1 45	X 1 06	Z 1 25	X 1 16
August	1 40	X 1 22	Z 1 40	X 1 32
September	1 50	X 1 31	Z 1 50	X 1 41
October	1 85	X 1 60	Z 1 80	X 1 70
November	1 95	X 1 70	Z 1 90	X 1 80
December	1 95	X 1 70	Z 1 90	X 1 80

1916				
January	1 85	X 1 60	Z 1 80	X 1 70
February	1 80	X 1 55	Z 1 70	X 1 65
February	*1 72	*1 77	*1 81	*1 85
March	1 70	X 1 50	Z 1 60	X 1 60
March	*1 64	*1 70	*1 71	*1 81
April	1 60	X 1 40	O 1 40	O 1 50
April	*1 53	*1 47	*1 57	*1 62
May	1 40	X 1 15	O 1 15	O 1 25
May	*1 30	*1 25	*1 32	*1 38
June	1 35	X 1 09	O 1 09	O 1 19
June	*1 25	*1 21	*1 27	*1 32
July	1 45	X 1 25	O 1 25	O 1 35
July	*1 35	*1 37	*1 46	*1 46
August	1 55	X 1 41	O 1 41	O 1 51
August	*1 46	*1 57	*1 73	*1 63
September	1 80	X 1 50	O 1 50	O 1 60
September	*1 73	*1 68	*1 63	*1 74
October	X 2 05	X 2 05	X 2 05	X 2 15
October	*2 25	*2 34	*2 35	*2 41
November	X 2 15	X 2 15	X 2 15	X 2 25
November	*2 38	*2 44	*2 47	*closed
December	X 2 15	X 2 15	X 2 15	X 2 25
December	*2 34	*2 44	*2 44	*closed

The Standard Dairy Company furnishes the following statements:

Average Prices Paid per Hundred for 3 to 3.5 Butterfat

	1912	1913	1914	1915	1916
January	\$1 95	\$1 85	\$1 85	\$1 80	\$1 80
February	1 70	1 75	1 75	1 75	1 75
March	1 58	1 70	1 70	1 65	1 65
April	1 41	1 50	1 40	1 36	1 45
May	1 29	1 35	1 15	1 25	1 33
June	1 17	1 15	1 10	1 18	1 20
July	1 30	1 35	1 25	1 30	1 35
August	1 47	1 55	1 40	1 40	1 50
September	1 58	1 70	1 50	1 47	1 65
October	1 70	1 80	1 80	1 75	2 20
November	1 75	1 90	1 90	1 85	2 30
December	1 85	2 00	1 90	1 85	2 30

The Locust Farms Company furnishes the following prices for the stations named:

1912					
Per 100 pounds					
	Nassau North Chatham Stuyvesant Falls	Golden Bridge N. Y.	Verbank, N. Y.	Billings, N. Y.	Walden, N. Y.
January	\$1 95	\$1 95	\$1 95	\$1 95	.....
February	1 90	1 91	1 91	1 91	.....
March	1 75	1 75	1 75	1 75	.....
April	1 50	1 50	1 50	1 50	.....
May	1 25	1 35	1 25	1 25	.....
June	1 10	1 20	1 20	1 20	.....
July	1 30	1 40	1 40	1 40	.....
August	1 70	1 80	1 80	1 80	.....
September	1 90	1 90	1 90	1 90	.....
October	1 90	1 90	1 90	1 90	.....
November	2 00	2 00	2 00	2 00	.....
December	2 00	2 00	2 00	2 00	.....

1913					
Per 100 pounds					
	Nassau North Chatham Stuyvesant Falls	Golden Bridge, N. Y.	Verbank, N. Y.	Billings, N. Y.	Walden, N. Y.
January	\$1 95	\$1 95	\$1 95	\$1 95	.....
February	1 85	1 85	1 85	1 85	.....
March	1 80	1 80	1 80	1 80	.....
April	1 70	1 70	1 70	1 70	.....
May	1 45	1 45	1 45	1 45	.....
June	1 30	1 30	1 30	1 30	.....
July	1 50	1 50	1 50	1 50	.....
August	1 70	1 70	1 70	1 70	.....
September	1 85	1 85	1 85	1 85	.....
October	2 00	2 00	2 00	2 00	.....
November	2 10	2 10	2 10	2 10	.....
December	2 10	2 10	2 10	2 10	.....

1914

January	\$2 05	\$2 05	\$2 05	\$2 05	.....
February	1 95	1 95	1 95	1 95	.....
March	1 90	1 90	1 90	1 90	.....
April	1 60	1 60	1 70	1 60	.....
May	1 35	1 35	1 45	1 75	.....
June	1 30	1 30	1 40	1 70	.....
July	1 40	1 40	1 55	1 45	.....
August	1 65	1 65	1 75	1 60	.....
September	1 80	1 80	1 90	1 70	.....
October	2 10	2 10	2 20	2 10	\$2 00
November	2 10	2 10	2 20	2 10	2 00
December	2 10	2 10	2 20	2 10	2 00

1915

Per 100 pounds

January	\$2 05	\$2 05	\$2 15	\$2 05	\$1 94
February	1 95	1 95	2 05	1 95	1 88
March	1 90	1 90	2 00	1 90	1 77
April	1 54	1 55	1 65	1 55	1 66
May	1 29	1 30	1 40	1 30	1 41
June	1 24	1 24	1 34	1 24	1 35
July	1 34	1 40	1 50	1 40	1 51
August	1 59	1 56	1 66	1 56	1 67
September	1 74	1 65	1 75	1 65	1 76
October	2 04	2 04	2 14	2 14	2 05
November	2 14	2 14	2 24	2 24	2 15
December	2 14	2 14	2 24	2 24	2 15

1916

Per 100 pounds

January	\$2 00	\$2 00	\$2 10	\$2 10	\$2 05
February	1 95	1 95	2 05	2 05	2 00
March	1 90	1 90	2 00	2 00	1 95
April	1 71	1 71	1 76	1 76	1 76
May	1 46	1 46	1 51	1 51	1 51
June	1 35	1 35	1 45	1 45	1 45
July	1 56	1 56	1 66	1 66	1 61
August	1 72	1 72	1 82	1 82	1 77
September	1 81	1 81	1 91	1 91	1 86
October	2 45	2 45	2 55	2 55	2 45
November	2 55	2 55	2 65	2 65	2 55
December	2 55	2 55	2 65	2 65	2 55

Prices quoted are for 100 pounds milk testing 4 per cent butter fat.

One quart milk averaging 2½ pounds.

Bonus of 3 cents for each one-tenth of 1 per cent paid for milk testing above 4 per cent and likewise a deduction of 3 cents for each one-tenth of 1 per cent is made for milk testing below 4 per cent butter fat.

Submitted by

LOCUST FARMS COMPANY,
458 10th Avenue, New York City."

The Borden Company classified its two schedules, the first for market milk for the years 1912-1916, which is as follows:

MILK PURCHASE PRICES FOR BORDEN'S FARM PRODUCTS DIVISION

Short Haul

Long Haul — Deduct 10 cents per hundred pounds from the following prices*:

	1912				
	Flat, per 100 lbs.	Barn score 68 Grade B, raw	3.8 fat	Voluntary increase	Total
January.....	\$1 95	.....	.....	.....	\$1 95
February.....	1 90	.....	.....	.....	1 90
March.....	1 75	.....	.....	.....	1 75
April.....	1 50	\$0 10	.....	.....	1 60
May.....	1 25	10	.....	.....	1 35
June.....	1 10	10	.....	.....	1 20
July.....	1 30	10	.....	.....	1 40
August.....	1 45	10	.....	\$0 25	1 80
September.....	1 55	10	.....	15	1 80
October.....	1 80	10	.....	.....	1 90
November.....	1 90	10	.....	.....	2 00
December.....	1 90	10	.....	.....	2 00

	1913				
January.....	\$1 85	\$0 10	.....	.....	\$1 95
February.....	1 75	10	.....	.....	1 85
March.....	1 70	10	.....	.....	1 80
April.....	1 50	10	\$0 10	\$0 07	1 77
May.....	1 25	10	10	07	1 52
June.....	1 10	10	10	07	1 37
July.....	1 35	10	10	08	1 63
August.....	1 45	10	10	10	1 75
September.....	1 55	10	10	11	1 88
October.....	1 80	10	10	11	2 11
November.....	1 90	10	10	05	2 15
December.....	1 90	10	10	.....	2 10

	1914				
January.....	\$1 85	\$0 10	\$0 10	.....	\$2 05
February.....	1 75	10	10	.....	1 95
March.....	1 70	10	10	.....	1 90
April.....	1 40	10	10	.....	1 60
May.....	1 15	10	10	.....	1 35
June.....	1 10	10	10	.....	1 30
July.....	1 25	10	10	.....	1 45
August.....	1 40	10	10	.....	1 60
September.....	1 50	10	10	.....	1 70
October.....	1 80	10	10	.....	2 00
November.....	1 90	10	10	.....	2 10
December.....	1 90	10	10	.....	2 10

* Except in September, 1912, and September, 1913, where only 5 cents is to be deducted.

1915

January.....	\$1 85	\$0 10	\$0 10	.....	\$2 05
February.....	1 75	10	10	.....	1 95
March.....	1 70	10	10	.....	1 90
3.3 per cent butter fat					
April.....	1 31				
May.....	1 06				
June.....	1 00				
July.....	1 16				
August.....	1 32				
September.....	1 41				
October.....	1 70				
November.....	1 80				
December.....	1 80				

NOTE.—10 cents per hundred pounds is deducted for milk scoring less than 68.

NOTE.—We pay three cents additional for each one-tenth of one per cent of butter fat.

1916

	Flat, per 100 lbs.	Voluntary increase	Total
January.....	\$1 70	.....	.....
February.....	1 65	.....	.....
March.....	1 60	.....	.....
3.3 per cent butter fat			
April.....	\$1 40	\$0 10	\$1 50
May.....	1 15	10	1 25
June.....	1 09	10	1 19
July.....	1 35	.....	1 35
August.....	1 51	.....	1 51
September.....	1 60	.....	1 60
3.0 per cent butter fat			
October.....	\$2 15	.....	2 15
November.....	2 25	.....	2 25
December.....	2 25	.....	2 25

For milk used in the canned goods division, to be condensed or evaporated, the Borden Company furnishes the following statement of prices paid:

Milk Prices, Short Haul Zone

1912

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January.....	\$1 95	.....	.....	.....	\$1 95
February.....	1 90	.....	.....	.....	1 90
March.....	1 75	.....	.....	.....	1 75
April.....	1 50	.....	.....	.....	1 50
May.....	1 25	.....	.....	.....	1 25
June.....	1 10	.....	.....	.....	1 10
July.....	1 30	.....	.....	.....	1 30
August.....	1 45	.....	.....	\$0 25	1 70
September.....	1 55	.....	.....	15	1 70
October.....	1 80	\$0 10	.....	.....	1 90
November.....	1 90	10	.....	.....	2 00
December.....	1 90	10	.....	.....	2 00

1913

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	\$0 10	.....	.....	\$1 95
February	1 75	10	.....	.....	1 85
March	1 70	10	.....	.....	1 80
April	1 50	10	\$0 10	\$0 07	1 77
May	1 25	10	10	07	1 52
June	1 10	10	10	07	1 37
July	1 35	10	10	08	1 63
August	1 45	10	10	10	1 75
September	1 55	10	10	11	1 86
October	1 80	10	10	11	2 11
November	1 90	10	10	05	2 15
December	1 90	10	10	.....	2 10

1914

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	\$0 10	\$0 10	.....	\$2 05
February	1 75	10	10	.....	1 95
March	1 70	10	10	.....	1 90
April	1 40	10	10	.....	1 60
May	1 15	10	10	.....	1 35
June	1 10	10	10	.....	1 30
July	1 25	10	10	.....	1 45
August	1 40	10	10	.....	1 60
September	1 50	10	10	.....	1 70
October	1 80	10	10	.....	2 00
November	1 90	10	10	.....	2 10
December	1 90	10	10	.....	2 10

1915

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	\$0 10	\$0 10	.....	\$2 05
February	1 75	10	10	.....	1 95
March	1 70	10	10	.....	1 90

April
May
June
July
August
September
October
November
December

No canned goods factories in short haul zone
after March 31, 1915

1916

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

No canned goods factories in short haul zone
after March 31, 1915

Milk Prices Long Haul Zone

1912

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	.....	.....	.....	\$1 85
February	1 80	.....	.....	.....	1 80
March	1 65	.....	.....	.....	1 65
April	1 40	.....	.....	.....	1 40
May	1 15	.....	.....	.....	1 15
June	1 00	.....	.....	.....	1 00
July	1 20	.....	.....	.....	1 20
August	1 35	.....	.....	\$0 25	1 60
September	1 50	.....	.....	15	1 65
October	1 70	\$0 10	.....	.....	1 80
November	1 80	10	.....	.....	1 90
December	1 80	10	.....	.....	1 90

1913

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 75	\$0 10	.....	.....	\$1 85
February	1 65	10	.....	.....	1 75
March	1 60	10	.....	.....	1 70
April	1 40	10	\$ 10	.....	1 60
May	1 15	10	10	.....	1 35
June	1 00	10	10	.....	1 20
July	1 25	10	10	.....	1 45
August	1 35	10	10	.....	1 55
September	1 50	10	10	.....	1 70
October	1 70	10	10	\$ 11	2 01
November	1 80	10	10	05	2 05
December	1 80	10	10	.....	2 00

1914

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 75	\$0 10	\$0 10	.....	\$1 95
February	1 65	10	10	.....	1 85
March	1 60	10	10	.....	1 80
April	1 30	10	10	.....	1 50
May	1 05	10	10	.....	1 25
June	1 00	10	10	.....	1 20
July	1 15	10	10	.....	1 35
August	1 30	10	10	.....	1 50
September	1 40	10	10	.....	1 60
October	1 70	10	10	.....	1 90
November	1 80	10	10	.....	2 00
December	1 80	10	10	.....	2 00

1915

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 75	\$0 10	\$0 10	.....	\$1 95
February	1 65	10	10	.....	1 85
March	1 60	10	10	.....	1 80

3.0 per cent less 10 cents for dairies not scoring

April	\$1 21	} 3 cents each 1-10 of 1 per cent additional			
May	96				
June	90				
July	1 06				
August	1 22				
September	1 31				
October	1 60				
November	1 70				
December	1 70				

1916

3.0 per cent *less 10 cents for dairies not scoring

January	\$1 60
February	1 55
March	1 50

3.3 per cent Vol. inc. *

3.5 per cent vol. inc.			
April.....	\$1 30	\$0 10	} 3 cents for each 1-10 of 1 per cent additional
May.....	1 05	10	
June.....	99	10	
July.....	1 25	.....
August.....	1 41	.....
September.....	1 50	.....
3.07 per cent			
October.....	1 80	\$ 49	
November.....	2 15	.....
December.....	2 15	.....

Prices Western New York

1912

	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	.....	.....	.....	1 85
February	1 75	.....	.....	.....	1 75
March	1 60	.....	.....	.....	1 60
April	1 35	.....	.....	.....	1 35
May	1 15	.....	.....	.....	1 15
June	1 05	.....	.....	.....	1 05
July	1 15	.....	.....	.....	1 15
August	1 30	.....	.....	\$0 25	1 55
September	1 40	.....	.....	15	1 55
October	1 65	.....	.....	.....	1 65
November	1 80	.....	.....	.....	1 80
December	1 80	.....	.....	.....	1 80

		1913			
	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 80	.....	.....	.....	\$1 80
February	1 70	.....	.....	.....	1 70
March	1 55	.....	.....	.....	1 55
April	1 40	.....	\$0 10	\$0 07	1 57
May	1 25	.....	10	07	1 42
June	1 10	.....	10	07	1 27
July	1 25	.....	10	08	1 43
August	1 40	.....	10	10	1 60
September	1 50	.....	10	11	1 71
October	1 70	.....	10	11	1 91
November	1 80	.....	10	05	1 95
December	1 80	.....	10	.....	1 90

		1914			
	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January	\$1 80	.....	\$0 10	.....	1 90
February	1 70	.....	10	.....	1 80
March	1 55	.....	10	.....	1 65
April	1 30	.....	10	.....	1 40
May	1 15	.....	10	.....	1 25
June	1 05	.....	10	.....	1 15
July	1 15	.....	10	.....	1 25
August	1 25	.....	10	.....	1 35
September	1 40	.....	10	.....	1 50
October	1 75	\$0 10	10	.....	1 95
November	1 80	10	10	.....	2 00
December	1 80	10	10	.....	2 00

		1915			
	Flat	Barn score	B. F. inc.	Vol. Inc.	Total
January	\$1 75	\$0 10	\$0 10	.....	\$1 95
February	1 65	10	10	.....	1 85
March	1 55	10	10	.....	1 75

April	\$1 16	3.0% Less 10 cents for dairies not scoring			
May	1 01				
June	1 01				
July	1 01				
August	1 15	} 3 cents for each 1-10 of one per cent additional			
September	1 27				
October	1 51				
November	1 56				
December	1 56				

1916

Flat

	3.0 per cent less 10 cents for dairies not scoring	
January	\$1 56	} 3 cents for each 1-10 of 1 per cent additional.
February	1 53	
March	1 46	
April	1 31	
May	1 16	
June	1 16	
July	1 16	
August	1 26	
September	1 46	
October	1 66+.10	
November	2 05+.10	
December	2 15	

PRICES AT FRANKFORT AND NEWPORT, N. Y.

1912

	Flat	Barn Score	B. F. 3.8	Vol. inc.	Total
January	\$1 75	.....	.....	.....	\$1 75
February	1 70	.....	.....	.....	1 70
March	1 55	.....	.....	.....	1 55
April	1 30	.....	.....	.....	1 30
May	1 05	.....	.....	.....	1 05
June	90	.....	.....	\$0 10	1 00
July	1 05	.....	.....	15	1 20
August	1 20	.....	.....	40	1 60
September	1 30	.....	.....	35	1 65
October	1 75	.....	.....	.....	1 75
November	1 90	.....	.....	.....	1 90
December	1 90	.....	.....	.....	1 90

1913

	Flat	Barn Score	B. F. 3.8	Vol. inc.	Total
January	\$1 85	.....	.....	\$0 05	\$1 90
February	1 75	.....	.....	.....	1 75
March	1 65	.....	.....	.....	1 65
April	1 45	.....	.....	.....	1 45
May	1 25	.....	.....	.....	1 25
June	1 10	.....	.....	.....	1 10
July	1 30	.....	.....	10	1 40
August	1 45	.....	.....	15	1 60
September	1 60	.....	.....	15	1 75
October	1 80	.....	.....	.....	1 80
November	1 90	.....	.....	.....	1 90
December	1 90	.....	.....	.....	1 90

1914					
	Flat	Barn score	B. F. 3.8	Vol. Inc.	Total
January.....	\$1 85	.....	.....	.....	\$1 85
February.....	1 80	.....	.....	.....	1 80
March.....	1 60	.....	.....	.....	1 60
April.....	1 40	.....	.....	.....	1 40
May.....	1 20	.....	.....	.....	1 20
June.....	1 10	.....	.....	.....	1 10
July.....	1 20	.....	.....	.....	1 20
August.....	1 40	.....	.....	.....	1 40
September.....	1 50	.....	.....	\$0 10	1 60
October.....	1 80	.....	.....	.....	1 80
November.....	1 80	.....	.....	.....	1 80
December.....	1 80	.....	.....	.....	1 80

1915					
	Flat	Barn score	B. F. 3.8	Vol. inc.	Total
January.....	\$1 80	.....	.....	.....	\$1 80
February.....	1 70	.....	.....	.....	1 70
March.....	1 60	.....	.....	.....	1 60
April.....	3.0% \$1 21	} 3 cents each 1-10 of 1 per cent additional.			
May.....	96				
June.....	90				
July.....	1 06				
August.....	1 22				
September.....	1 31				
October.....	1 47				
November.....	1 57				
December.....	1 57				

1916					
	Flat 3.0 per cent				
January.....	\$1 57	} 3 cents for each 1-10 of one per cent additional.			
February.....	1 54				
March.....	1 48				
April.....	1 21				
May.....	1 11				
June.....	1 05				
July.....	1 21				
August.....	1 40				
September.....	1 46				
October.....	1 80+.15				
November.....	2 05				
December.....	2 05				

Manufacturing department (canned goods division), production section.

R. T. S."

From a study of the foregoing schedule of prices, bearing in mind the fact that in the large majority of dairies nearly two-thirds of the production would be made during the months from April to October, inclusive, it becomes apparent that it would be difficult for the owner of the average 5,000 pound cow to secure

from the sale from market milk a gross return of \$80 for milk testing 3.7 butter fat. Of course, this includes no return for the calf or manure. But the hired man must be paid in cash. Increased fertility of the soil does not appeal to him. Even the dairy farmer finds himself in need of some immediate cash return for his labor and that of his family. He cannot be expected to take his entire return in manure.

VALUE OF THE FARM HOME

However, there is another factor to be considered in determining the income from a dairy farm for the labor of the farmer engaged therein. It may perhaps be stated that one of the valuable by-products of the dairy industry is the farm home. It is frequently characterized as an independent life and a healthy occupation. A New England writer observed, however, that his neighbors did not own their farms, but their farms owned them. When we consider that the dairy requires practically its regular labor on every Sunday and holiday throughout the year, and the farm housewife must perform the accompanying housekeeping tasks each day with unceasing regularity, these features may not prove sufficiently attractive. These factors take away, in considerable degree, the independence so far as the dairy farmer is concerned. It is obviously true, however, that the healthy surroundings and occupations of the dairy farm are desirable from many points of view. The training and environment produces strong men and women for the State. The rearing, owning and caring for cattle is an elemental desire of civilized man. The pursuit is instinctive in the nature of a large part of mankind and has fascinations and delights unconnected with the idea of immediate cash returns. Many men of wealth devote a part of their time and large portions of their capital to this occupation at a financial loss and without giving great consideration to the cash returns. Perhaps this factor has contributed in a greater degree than is sometimes considered to the up-building and development of the dairy industry in the State.

CASH VALUE TO THE AVERAGE DAIRY FARMER

The dairy farm is assumed to furnish in large part fuel, house rent, garden vegetables, eggs and poultry for the family table

with but little additional expenditure. The Committee has attempted to have an approximate cash value placed on these items. The United States Department of Agriculture in Bulletin No. 635, as a result of its studies of 483 farms in ten states, placed this value as follows:

Food.....	\$261 00
Fuel.....	35 00
House.....	125 00
Total.....	<u>\$421 00</u>

As to 106 farms in Livingston county, N. Y., this bulletin gives the following items:

Food.....	\$249 00
Fuel.....	41 00
House.....	126 00
Total.....	<u>\$416 00</u>

This item was discussed with many witnesses. In most cases, the witnesses appeared to think the values too high or that they should not be credited as a by-product of the dairy farm. They contended that the food and fuel had an actual labor cost in addition to the dairy labor, off-setting its value, so that the only item that should be properly credited was house rent. However this may be, it is believed that the farm home has elements of value in the way of healthful surroundings and abundance of food supply at low cost which cannot in any wise be afforded by the average employee in manufacturing centers. But two things must be considered in discussing this fact, first: the farm home requires a capital investment which is not required by the employee in the manufacturing center; second, the farm home is equally provided by agricultural pursuits other than dairying, which latter pursuit it is of the utmost importance to the State to foster and encourage.

BETTER FAT TEST FROM STATION RECORDS

Believing that it will be of interest to dairymen and to the Committee to collect for comparative purposes, series of the records of patrons, butter fat tests from different sections of the State, a large number of such tests have been taken and are included in the minutes of these hearings. They afford a certain

measure of information as to the increase and decrease of butter fat during the different seasons of the year in the average dairy. They may also be of considerable value for other purposes. In studying these tests, it must be borne in mind that the butter fat test is no more accurate or honest than the equipment and the individual making it and the care and skill employed by him in the process. As a preliminary to these test records, some of the evidence presented to the Committee may be of importance.

Professor H. C. TROY, of the State College of Agriculture, called before the Committee, testified:

"I might start with sampling. Probably the principal reason why a man uses a sampling tube in place of a dipper is that he desired to get a proportionate amount of the cream that was in the weigh can to place in a composite sample and the amount that he got in his tube would depend on the depth of the cream in the weigh can. If a can had one hundred pounds, he would get in the tube, or take from the can one-half of the amount that he would take if the can had two hundred pounds in it. He regulates that by the depth of the cream in the tube. The tube is in a way automatic in its action. It is a hollow tube, called a sampling tube, and he places it down to the bottom of the can and allows the milk to flow into the tube to the normal depth. If there was one hundred pounds in the can it should be one-half as deep as if there was two hundred and it would only fill the tube one-half as high. He places this sample in a test bottle in which all of the samples are placed of the individual milk dealers to that factory or station. Possibly he gets five cubic centimeters or five grams. The next day the man may deliver two hundred pounds or he may deliver one hundred and twenty. In any case, he wants a proportionate sample, so he places his tube down again; it fills higher up in the tube and he gets a much larger amount and places that with the sample taken the day before. If it is lumpy cream, of course, he does not get a fair sample. The cream should first be mixed or the man should know or does know that it is in a condition that he can get a fair sample. Otherwise, in the case of cream we direct that the cream be passed through a strainer like a fine sieve and all be put into a condition that may be readily mixed and converted into a homogeneous mass. He keeps the

tube in hot water so as to keep it hot so that all of the cream will run out after the sample. Of course, if water stayed in the tube it would tend to decrease the test in proportion to the amount of water that was present. No water should be allowed to get in the cream sample. Little water actually goes in, the tube being usually oily. At the same time I imagine there would be a trace of water. When we take cream at the Agricultural College, each delivery is sampled. If we make composite sample, it is tested once a week or once in ten days or two weeks.

Weighing Cream Samples

"It is necessary to weigh the cream test sample. There are three causes that interfere with getting an accurate sample of cream.

"The first and principal one is that the specific gravity of cream varies widely according to the per cent. of fat as compared with the sample of milk, which is fairly constant. The higher the percentage of fat, the lighter would be the definite volume of cream. That is, a definite volume of 18 per cent. cream would weigh more than the same value of 40 per cent. cream and cream is a substance that varies widely in the per cent. of fat from different patrons and often from the same patron on different days, so that it is necessary to weigh the sample of cream to determine the amount you put in the test bottle. The weight should be the same in every instance. It is based upon 18 grams. The pipette, if you use one graduated on the stem, would not hold 18 grams of rich cream, if it held 18 grams of 18 per cent. cream, so we place the test bottle on the scales and weigh 18 grams directly into the bottle. We may use the pipette for the purpose of transferring the cream from the sample bottle into the test bottle, but we weigh it. The test bottle is large enough to hold 18 grams in any event. In testing cream, we do not need the pipette at all. What we really need is an accurate weight of the 18 grams. The pipette is only useful in determining the proper amount of milk to put into a test bottle and it does not do it in the cream proposition, so we substitute for the pipette an accurate weight and put that accurate 18 grams in the test bottle. That is the only way to get a fair test of cream. There are two other qualities of cream

that make it difficult to get 18 grams. In the first place, the cream does not flow freely from the pipette. Another is that cream is a viscous or sticky substance, and if you attempt to agitate it a little rapidly just before drawing your sample, you would probably incorporate air bubbles and of course the more air bubbles you incorporate, the less the volume of cream would be in the pipette. I have heard different times that cream was being tested without regard to weight and have no doubt but what it has been practiced to a great extent in the past. Gradually it is going out of practice. You need the scales that weigh accurately to the tenth of one gram. The ordinary cream scale will do that. The sample should be a very little over half an ounce. In testing cream we usually take 9 grams in place of 18. I use 18 here because that was the amount we used at a former time and because we take 18 grams of milk always. We get a sufficient volume of fat in 9 grams of cream so that we can read it accurately.

“There is one other difference in the testing of cream than in the testing of milk. It has been found from experience that we do not read the final test in exactly the same manner.

Miniscus

“You will notice a curved surface at the top. The fat in the test tube is supposed to be the same height on each side, but it has what we call the miniscus,—that curved surface of the fat in the top of the bottle due to capillary attraction when the fat crawls up the side of the neck a little all the way round the outside. In order that the test should agree with chemical analysis, if the test is accurately made, you would include that curved surface in the reading because a small amount of fat remains down in the test bottle in this test and you include that in the reading. The Babcock test really does not send out quite all of the fat. There is a small amount remains, due to the viscosity of the fat. A portion of the fat is in extremely minute globules and a small portion remains, so in testing milk we include that curved surface in the reading, but when we come to test cream we should not include that curved surface, quite all of it in the reading, because, in the first place, the diameter of the neck of the cream bottle is much larger than the diameter of the bore in the neck of the milk

test bottle. In the cream test we use a bottle with a larger bore in the neck, so that the meniscus occupies a space about four times as great in diameter in the cream bottle as would be the meniscus in the milk bottle and if we allow the meniscus, it would be four times as much as the allowance made in milk, but by experiment we found that the amount of fat that remains down in the bottom of the cream test bottle is about the same as that remains down in the bottom of the milk test bottle, so it would be wrong to allow four times as much for the part that remains down in cream as in milk; so we destroy that meniscus in the cream test tube by placing a substance over the top and make it flat. Then we just read the actual volume. We flatten it out with an oil that is lighter, allowing it to run down the side of the neck of the bottle and it flows across the top of the butter fat in the cream test tube and remains there on top. It is becoming very common. Then you can read the exact line of the fat. We usually color this oil a bright red. Now, I want to state how we make up in regard to the fat that remains down in the cream test bottle.

“The volume of fat in the cream test is much larger than in the milk test and some impurities come up with the fat, traces of the acid that is used in making a test, a portion of the watery part of the cream and some slight insoluble matter comes up and occupies a space mixed with the fat in the neck of the bottle, so that amount of impurities in the fat we find by experience just about balances the amount of fat that remains down in the cream test. It would not balance it in the milk test, because of the volume of the fat in the milk test bottle being very much smaller. These things we determine by checking the tests with chemical analysis. Acid used in the milk test might be described as either too weak or too strong or just right. The specific gravity of the acid should be 1.82 and 1.83 and that gives sufficient concentration of the acid that will work best in making the test. If the acid is too weak it will be indicated by a pale and brightish fat column. It might or might not give too liberal an allowance of butter fat. It might give you more fat than you should get, or it might not set free all the fat and you might get a lower test. You cannot tell whether the undissolved matter is too high or too low, if the acid is weak. The acid should be at a temperature of

60 degrees or 70 degrees Fahrenheit. That is the temperature that milk in acid should be just previous to mixing. After that, the temperature goes right up.

"In operating a milk station, to get a point too low in all of them, of course it could be done by reading it too low. If the reading was preserved, it could be done by adding water or skim milk to the sample of milk. If you had it in a cold temperature you cannot make the fat column look right; it would not have a nice clear yellow color. The ordinary patron on inquiry can learn how the test should look. The patrons usually have the privilege of going right through the station and seeing how the test is made and the station man is usually free to inform them of these facts. I found that to be quite general everywhere and they were usually willing and pleased to instruct their patrons as to how the test was made and allowed them to see the test. The scales on the milk test bottle read one-tenth of one per cent., and on the cream test bottle, it reads one-half of one per cent. The smallest graduation on the scale of a cream test is five times as much as the smallest graduation on the scale of the milk test tube. The milk test tube reads from zero to eight per cent. The cream test tube reads from zero to fifty per cent.

Disagreements Between Cow Testing Association and Station Tests

"When the test is made by the man who tests for the Testing Association, compared with the man who tests at the creamery, there might possibly be a small discrepancy which sometimes is magnified a great deal, but which is almost impossible to overcome. In the neck of the Babcock test bottle the highest graduation is 8 per cent. Here is the 7 per cent. milk and then we have the one-tenth graduations. The top surface of the fat column after the test is curved and the man who makes the test should he read it at that point, say 6.6, the top of the fat column, perhaps the bottom of the fat column would be, we will say, at the 2 per cent. mark, and he subtracts two from six, leaving 4.6. That is, the fat column would occupy this space in the bottle and it would amount to 4.6 per cent. Now, the man who is doing the testing for the farmer, he wants to make the farmer feel as

good as he can and he wants to get as high a reading as he can, and his instructions are that you read to the very top this point on the edge of the fat column and to the base. Assume he is very generous and he reads full up to that point. If you are working in a room and light comes in from each side, there will be a dark band just above the edge of the fat column. It is very difficult to distinguish just where that point comes on the side of the glass upon the scale. The man reads to the very highest point there, gets a little bit above the actual top. There is a dark band reflected; he gets possibly a trace above the point of connection between the fat and the glass, but the man at the milk shipping station is urged not to read too high and he, possibly in his anxiety to read right, reads a little low.

Test Only Accurate to One-Tenth of One Per Cent.

“Now, these tests are not claimed to be accurate, as we say, only to one-tenth of one per cent. The man at the farm may read maybe one or two bottles of the same milk in duplicate. One would test 4.6 and the other 4.7. That is all that is claimed for the test. You get within one-tenth of one per cent. First, error in the graduation. Second, an error in the amount of fat that comes up in the neck; thirdly, errors in the amount of impurities that may come up with the fat. This fat is not absolutely pure. A larger amount of impurities may come up in one than in another, so that the test is one-tenth of one per cent. accurate, but that is very small on the whole and it is accepted as being sufficiently accurate for practical work. So that it is easy for the cow tester to be one-tenth too high and the factory man to be one-tenth too low. That will make two-tenths difference. The dairyman says then there is two points difference, and it is a large amount. As a matter of fact, it may not be anything really that is very serious, so that when you find a slight discrepancy on the milk test it does not establish dishonesty; but on cream if you should find one or two per cent., it means more because it is a more valuable product and the cream should be within one-half of one per cent.”

In the course of the Committee's work, it encountered many and various opinions as to the value and reliability of butter fat

tests. It also encountered various kinds of butter fat testers. It is fair to say that in the larger and well-managed plants the Committee is of the opinion that the butter fat test is carried on with adequate equipment and competent operators. In many of the smaller plants, however, where the butter fat test is attempted to be used as a basis for the payment of milk, both the skill of the operators, the equipment and the methods used might well be subjected to considerable criticism. It is doubtful if the alleged tests in many small stations, in the hands of an unskillful operator, are really conducted with any serious attempt at accuracy.

The evidence of Professor Troy, however, throws a useful light upon many discussions and disputes which have arisen between the station tester and the dairyman in various parts of the State. The question was found to be a burning one in certain sections of the county of Wyoming, and dairymen and others at that point presented the following statement to the Committee as presenting the results of their investigations of the operations of the butter fat test in their community. This paper is included herewith, not as establishing the facts asserted therein, a great many of which were not testified to under oath, but as showing the nature and the source of disagreements in the matter of tests and as especially illustrating the nature of the controversy:

Investigation of Variations Between Tests Made by Creameries and Associations

WHEREAS, The patrons of certain creameries are dissatisfied with the butter-fat tests made at such creameries, and,

WHEREAS, The tests made by said creameries show considerable variations from the tests made by Dairy Demonstration Agents in charge of Cow Testing Associations,

THEREFORE, The Manager of the Wyoming County Farm Bureau charged with the supervision of such associations in the county, has gathered the following data in order to ascertain the facts and if possible determine the cause of such variations. In making this investigation, the Manager assisted by Mr. A. J. Nicol of the Department of Agriculture secured the following data:

Bordens—Attica

1. The following table shows how the tests made by Mr. Daggett of the Attica Cow Test Association compare with those made at the Borden Factory:

Owner		Feb.	Mar.	April	May	June	July	Aug.
W. A. Greene....	Borden....	3.8	3.8	4.	4.	4.3	4.3	4.8
	Daggett....	3.9	3.8	3.9	4.1	4.4	4.5	5.
Wm. Gassman....	Borden....	3.9	3.9	4.	4.	4.	3.9	4.1
	Daggett....	4.	3.9	4.1	4.1	4.	4.1	4.4
Frank Hennig....	Borden....	3.6	3.8	....	....	3.7	3.7	3.6
	Daggett....	3.7	3.9	3.7	3.6	3.6	3.6	3.4
Conway Bros.....	Borden....	3.9	4.	4.	3.9	3.7	4.	4.1
	Daggett....	3.9	4.	4.	3.9	3.8	3.9	4.1
Mrs. F. P. Smith	Borden....	3.9	3.7	3.8	3.7	3.5	3.6	3.8
	Daggett....	4.	3.8	3.8	3.7	3.7	3.4	3.5
Ed. Geitner.....	Borden....	3.9	4.	3.9	4.	3.9	3.8	3.8
	Daggett....	....	....	....	....	....	....	....

Note that in the above table the tests check very closely and in the 6 herds for 7 months only, tests varied more than .2 of one per cent. and tests .1 of one per cent.

In an interview with the Manager of the Borden plant, Mr. Dye, and his secretary, we learned that a duplicate sample had been sent from a sample bottle from the Varysburg factory owned and operated by Mr. Geo. Hogue. Such sample had been secured from the factory for the purpose of verification of test by a farmer. The tester at Borden's reported that the contents of the sample were in such condition that it could not be accurately tested. The manager of the Borden plant stated that they had found by experience that testing a 15-day sample was not a square deal for the farmer and for this reason the company had changed to the method of testing samples four times a month.

Owner		Feb.	Mar.	April	May	June	July	Aug.	Sept.
Clayton Spring...	Borden....	4.	4.0	4.2	4.2	4.	4.6	4.3	....
	Daggett....	4.1	4.2	4.3	4.2	4.2	4.3	4.4	....
M. Neeley.....	Borden....	....	....	....	....	....	3.6	3.7	3.8
	Stout.....	....	....	....	....	....	3.5	3.8	3.6
Merritt Reed.....	Borden....	....	....	....	....	....	3.6	3.7	....
	Stout.....	....	....	....	....	....	3.5	3.9	4.
Edw. Zeches.....	Borden....	....	....	....	....	....	3.9	4.	4.3
	Stout.....	....	....	....	....	....	4.	4.1	4.1
H. Brewer.....	Borden....	....	....	....	....	....	3.6	3.8	3.8
	Stout.....	....	....	....	....	....	3.4	3.2	4.
Floyd Chanler....	Borden....	....	....	....	....	....	4.	4.	....
	Stout.....	....	....	....	....	....	4.	4.	4.3
V. D. Morgan....	Borden....	....	....	....	....	....	3.7	3.8	....
	Stout.....	....	....	....	....	....	3.8	4.	4.3
Smith Bros.....	Borden....	....	....	....	....	....	3.6	3.9	....
	Stout.....	....	....	....	....	....	3.7	4.	4.
D. J. Van Wagnen	Borden....	....	....	....	....	....	3.7	3.8	....
	Stout.....	....	....	....	....	....	3.7	3.8	3.8
F. W. Gill.....	Borden....	....	....	....	....	....	....	3.8	....
	Stout.....	....	....	....	....	....	3.6	3.8	3.9
Merle Bros.....	Borden....	....	....	....	....	....	3.9	4.1	....
	Stout.....	....	....	....	....	....	4.1	4.2	4.6
Brewer & Son....	Borden....	....	....	....	....	....	3.4	3.5	....
	Stout.....	....	....	....	....	....	3.4	3.6	3.8
F. A. Dutton.....	Borden....	....	....	....	....	....	....	4.	....
	Stout.....	....	....	....	....	....	3.8	4.8	5.1

Owner		Feb.	Mar.	April	May	June	July	Aug.	Sept.
B. P. Gage.....	Borden.....	...	...	...	...	...	3.7	3.9	....
	Stout.....	...	...	...	...	...	3.7	3.8	4.3
Geo. Whipple.....	Borden.....	...	...	...	...	...	3.6	3.8	....
	Stout.....	...	...	...	...	...	3.7	3.7	4.1
Robert Brace.....	Borden.....	...	...	...	...	...	3.8	4.1	....
	Stout.....	...	...	...	...	...	3.9	4.3	4.6
Fred Collins.....	Borden.....	...	...	...	...	...	3.6	3.7	....
	Stout.....	...	...	...	...	...	3.5	4.	4.
John Anderson...	Borden.....	...	...	...	...	...	3.6	3.9	....
	Stout.....	...	...	...	...	...	3.9	3.9	4.5
Frank Houghton	Borden.....	...	...	...	...	...	3.9	4.	....
	Stout.....	...	...	...	...	...	4.3	4.3	4.6
A. Wilson.....	Borden.....	...	...	...	...	...	3.6	3.8	....
	Stout.....	...	...	...	...	...	4.3	4.5	4.5

(Cheese Factory) HOGUE vs. STOUT (Association Cow Tester)

Owner		July		Aug.	Sept.	Over
Allen Ikeler.....	Hogue.....	15	3.4	3.5	3.9	....
	Stout.....	31	3.4	3.8	4.0	....
Thos. Hale.....	Hogue.....	15	3.7	3.9	4.1	....
	Stout.....	31	3.4	3.8	....	....
Willis Munger....	Hogue.....	15	3.6	3.8	4.	....
	Stout.....	31	3.6	3.7	4.	....
William Seth.....	Hogue.....	15	3.6	3.7	3.9	....
	Stout.....	31	3.3	3.4	....	....
Bert Langdon....	Hogue.....	15	3.4	3.7	4.3	....
	Stout.....	31	3.7	3.8	4.5	....
Geo. Hatfield.....	Hogue.....	15	....	....	....	....
	Stout.....	31	....	3.8	....	....
W. H. Rugg.....	Hogue.....	15	3.5	3.8	3.8	....
	Stout.....	31	....	....	3.9	....
Lowe Bros.....	Hogue.....	15	....	....	4.1	....
	Stout.....	31	....	3.9	4.1	....
Henry Bristol....	Hogue.....	15	4.	4.1	4.3	....
	Stout.....	31	....	....	4.1	....
Plin Fuller.....	Hogue.....	15	....	....	....	....
	Stout.....	31	....	3.8	....	....
Fred Hubbard....	Hogue.....	15	3.9	3.9	4.7	....
	Stout.....	31	....	....	4.	....
Belden & Shaffner	Hogue.....	15	....	3.9	4.3	....
	Stout.....	31	4.1	4.4	4.5	....
Fred Zeches.....	Hogue.....	15	....	....	....	....
	Stout.....	31	....	4.0	....	....
Ray Shaw.....	Hogue.....	15	3.5	3.4	4.1	....
	Stout.....	31	3.4	3.4	3.8	....
G. R. McGowan..	Hogue.....	15	3.4	3.7	4.	....
	Stout.....	31	3.6	3.8	4.3	....
	Hogue.....	15	3.5	3.5	3.7	....
	Stout.....	31	3.6	3.6	3.7	....
	Hogue.....	15	3.9	4.2	3.8	....
	Stout.....	31	3.7	3.6	3.8	....
	Hogue.....	15	3.9	4.3	4.3	....
	Stout.....	31	3.8	3.8	3.9	....
	Hogue.....	15	....	....	....	3.7
	Stout.....	31	....	....	....	4.
	Hogue.....	15	....	3.5	....	....
	Stout.....	31	3.6	4.2	....	....

Hogue Factory—Varysburg

II. The following table shows how the tests made by Mr. Daggett of the Attica Association compare with those made at the Hogue factory, Varysburg:

Owner		Feb.	Mar.	April	May	June	July	Aug.	Sept.
County Farm	{ Hogue.....	3.3	3.35	3.55	3.5	3.35	3.2	3.45	...
	{ Daggett.....	3.6	3.7	3.65	3.9	3.5	3.6	3.55	3.7

III. Variations which occurred when certain patrons changed from Borden's to Hogue Creamery. (a) Jacob Bohn, Attica, N. Y., sold milk from November, 1915, to February 15, 1916, to the Bordens at Attica. During this time his tests ran from 3.7-3.9. Sold milk from February 16, 1916, until May, 1916, to the Creamery at Varysburg owned by Mr. Hogue. During this time his tests ran from 3 to 3.2. The fall in test took place immediately when the test was made. The tests were made by Mr. Hogue's brother and also by Mr. Gibby, Inspector of the State Department of Agriculture. Being dissatisfied, Mr. Bohn withdrew his milk. Mr. Bohn states that there were no fresh cows and no calves were being fed. There were also no changes in herd at time drop occurred and that there were no changes in feeding, and no changes in care of the milk. After withdrawal of milk from creamery Mr. Hogue visited Mr. Bohn's farm and said to Mrs. Bohn that there must be some mistake in the testing, and that as Mr. Gibby's eyesight was poor he probably did not read the tests correctly.

(b) Fred J. Deci, Attica, N. Y.

IV. Sold milk for about 3 months previous to Feb. 15, 1916. During this time tests ran 4.2 in Dec., 4.4 in Jan., 1st two weeks of Feb. 4.3. Sold milk after Feb. 15, 1916, until Apr. and inclusive to Mr. Hogue. During this time tests ran 3.6 last two of Feb. and the two days of April was 3.2. Does not know what March test was. After April end removed milk to put in factory near home because dissatisfied with test. When change was made from Borden to Hogue no change was made in herd in feeding or care and there were no new milch cows.

AVERAGE INDIVIDUAL TEST OF THE TWENTY-FIVE COWS CONSTITUTING THE HERD AT THE STATE EXPERIMENT FARM
AT GENEVA FOR THE YEAR 1915.

Cow	Fat per cent	Cow	Fat Per cent
1.....	5.1	15.....	5.23
2.....	6.16	16.....	5.39
3.....	6.37	17.....	6.29
4.....	6.03	18.....	5.79
5.....	6.28	19.....	6.66
6.....	5.97	20.....	5.93
7.....	5.73	21.....	5.74
8.....	6.07	22.....	6.07
9.....	6.75	23.....	5.21
10.....	5.70	24.....	5.43
11.....	6.08	25.....	6.44
12.....	5.82		
13.....	6.33	Average.....	5.86
14.....	6.19		

FAT TESTS, CANDOR STATION, TIOGA COUNTY, ALEXANDER CAMPBELL COMPANY.

April 13, 1916.

Patron No. 1.....	3.8	Patron No. 15.....	4.
Patron No. 2.....	3.4	Patron No. 16.....	3.7
Patron No. 3.....	3.6	Patron No. 17.....	4.8
Patron No. 4.....	3.8	Patron No. 18.....	3.4
Patron No. 5.....	3.6	Patron No. 19.....	4.
Patron No. 6.....	3.9	Patron No. 20.....	4.
Patron No. 7.....	3.3	Patron No. 21.....	4.2
Patron No. 8.....	3.6	Patron No. 22.....	3.6
Patron No. 9.....	3.5	Patron No. 23.....	3.2
Patron No. 10.....	3.4	Patron No. 24.....	4.1
Patron No. 11.....	4.1	Patron No. 25.....	4.3
Patron No. 12.....	4.2	Patron No. 26.....	3.
Patron No. 13.....	3.8	Patron No. 27.....	3.4
Patron No. 14.....	3.6	Patron No. 28.....	3.6

Test of April 20, 1916.

Patron No. 1.....	4.	Patron No. 15.....	3.9
Patron No. 2.....	3.4	Patron No. 16.....	3.7
Patron No. 3.....	3.6	Patron No. 17.....	4.8
Patron No. 4.....	3.9	Patron No. 18.....	3.6
Patron No. 5.....	3.8	Patron No. 19.....	3.9
Patron No. 6.....	4.	Patron No. 20.....	3.9
Patron No. 7.....	3.4	Patron No. 21.....	4.2
Patron No. 8.....	3.6	Patron No. 22.....	3.5
Patron No. 9.....	3.6	Patron No. 23.....	3.5
Patron No. 10.....	3.6	Patron No. 24.....	4.
Patron No. 11.....	4.2	Patron No. 25.....	4.2
Patron No. 12.....	4.2	Patron No. 26.....	3.
Patron No. 13.....	4.	Patron No. 27.....	3.6
Patron No. 14.....	3.6	Patron No. 28.....	3.8

Test of April 27.

Patron No. 1.....	3.9	Patron No. 15.....	3.3
Patron No. 2.....	3.5	Patron No. 16.....	3.3
Patron No. 3.....	3.5	Patron No. 17.....	4.5
Patron No. 4.....	4.	Patron No. 18.....	3.5
Patron No. 5.....	4.	Patron No. 19.....	4.
Patron No. 6.....	3.8	Patron No. 20.....	4.1
Patron No. 7.....	3.7	Patron No. 21.....	3.9
Patron No. 8.....	3.5	Patron No. 22.....	3.5
Patron No. 9.....	3.5	Patron No. 23.....	3.3
Patron No. 10.....	3.8	Patron No. 24.....	3.7
Patron No. 11.....	4.2	Patron No. 25.....	4.3
Patron No. 12.....	4.	Patron No. 26.....	3.
Patron No. 13.....	3.8	Patron No. 27.....	3.8
Patron No. 14.....	3.4	Patron No. 28.....	3.6

Test of May 29.

Patron No. 1.....	4.	Patron No. 17.....	3.6
Patron No. 2.....	3.7	Patron No. 18.....	4.4
Patron No. 3.....	3.4	Patron No. 19.....	4.
Patron No. 4.....	3.8	Patron No. 20.....	4.
Patron No. 5.....	3.9	Patron No. 21.....	3.9
Patron No. 6.....	4.1	Patron No. 22.....	3.4
Patron No. 7.....	3.8	Patron No. 23.....	3.8
Patron No. 8.....	4.	Patron No. 24.....	3.8
Patron No. 9.....	3.6	Patron No. 25.....	3.2
Patron No. 10.....	3.9	Patron No. 26.....	3.7
Patron No. 11.....	3.7	Patron No. 27.....	3.7
Patron No. 12.....	3.9	Patron No. 28.....	3.5
Patron No. 13.....	3.3	Patron No. 29.....	4.
Patron No. 14.....	3.4	Patron No. 30.....	3.8
Patron No. 15.....	3.5	Patron No. 31.....	4.
Patron No. 16.....	4.5		

Test of June 27.

Patron No. 1.....	4.3	Patron No. 19.....	3.8
Patron No. 2.....	3.9	Patron No. 20.....	4.7
Patron No. 3.....	3.9	Patron No. 21.....	4.
Patron No. 4.....	4.	Patron No. 22.....	3.9
Patron No. 5.....	4.1	Patron No. 23.....	4.4
Patron No. 6.....	4.2	Patron No. 24.....	4.1
Patron No. 7.....	4.2	Patron No. 25.....	4.2
Patron No. 8.....	4.	Patron No. 26.....	4.2
Patron No. 9.....	4.2	Patron No. 27.....	3.9
Patron No. 10.....	4.	Patron No. 28.....	3.6
Patron No. 11.....	4.	Patron No. 29.....	3.7
Patron No. 12.....	4.2	Patron No. 30.....	3.9
Patron No. 13.....	3.3	Patron No. 31.....	4.
Patron No. 14.....	4.	Patron No. 32.....	3.9
Patron No. 15.....	3.6	Patron No. 33.....	4.1
Patron No. 16.....	4.	Patron No. 34.....	4.
Patron No. 17.....	3.9	Patron No. 35.....	3.8
Patron No. 18.....	3.9		

Test of July 6.

Patron No. 1.....	4.6	Patron No. 20.....	4.7
Patron No. 2.....	4.1	Patron No. 21.....	4.1
Patron No. 3.....	3.9	Patron No. 22.....	4.
Patron No. 4.....	3.9	Patron No. 23.....	4.6
Patron No. 5.....	4.1	Patron No. 24.....	4.5
Patron No. 6.....	4.4	Patron No. 25.....	4.3
Patron No. 7.....	4.3	Patron No. 26.....	4.2
Patron No. 8.....	4.1	Patron No. 27.....	3.9
Patron No. 9.....	4.1	Patron No. 28.....	3.8
Patron No. 10.....	4.2	Patron No. 29.....	4.4
Patron No. 11.....	4.	Patron No. 30.....	4.
Patron No. 12.....	4.	Patron No. 31.....	3.9
Patron No. 13.....	3.6	Patron No. 32.....	3.6
Patron No. 14.....	4.2	Patron No. 33.....	4.
Patron No. 15.....	3.5	Patron No. 34.....	3.9
Patron No. 16.....	4.2	Patron No. 35.....	4.
Patron No. 17.....	3.9	Patron No. 36.....	4.
Patron No. 18.....	3.8	Patron No. 37.....	4.5
Patron No. 19.....	3.9		

HENRY ARENS, called as a witness, testified:

"I am superintendent of the above stations. I have not yet got a license. I wrote for a license to the company. This is my first experience in New York. I make the butter fat test. I learned that at Hackettstown, N. Y., in March, 1916. Before that I worked in a milk station in Pennsylvania, but never made butter fat tests. Inspector Ruddy of the New York Board of Health sent me to Campbell and I got the place up here. I lived in Pennsylvania a year and three-quarters. Before that, in New York city and before that in Germany. I was not in the milk business in Germany. I clerked in a hardware store. In New York, I was doing everything, but not in the milk business. I got one man with me, Mr. Richards, in the Candor factory. He has been there a long time; he is an old gentleman. I get \$50 a month. When I saw Mr. Campbell, he said I should go to Hackettstown and learn how to make butter fat tests. That is all I did in Hackettstown, but that was in March.

Mr. Ward.—How do you make a fat test?

Mr. Arens.—It is marked on the glass. Take that much milk in the bottle and put acid; I don't know what kind of acid; the company sends it; it was there when I came. I don't know that the quality of the acid affects the result. I take a sample once a week out of the weighing vat. Dump them out together and stir them up. I take each man's sample the same day. I put this sample in pint bottles and after I get through, I test. I got every bottle with the names written on it. Then I take the test bottles, it is marked on the glass; I don't know how much and put the milk in the test bottle and put that much acid in and put it in the Babcock Tester, run it for five minutes, then I put hot water down the neck.

Mr. Ward.—What do you do that for?

Mr. Arens.—That butter fat comes up. Then I run it for three minutes and I put water again in, hot water, pretty near fill bottle and run for two minutes so that all the butter fat comes up. After that, it is marked to show how much butter fat it is."

FAT TEST, BOONVILLE STATION, ONEIDA COUNTY, ALEXANDER
CAMPBELL COMPANY.

Dairyman	April				
	1st test	2nd test	3rd test	4th test	Average
No. 1—Boeh.....	3.4	3.3	3.4	3.4	3.4
No. 2—Capron.....	3.3	3.4	3.4	3.4	3.4
No. 3—Capron, B.A.	3.6	3.7	3.6	3.6	3.6
No. 4—Sheperd, C.....	4.	3.6	3.4	3.4	.....
No. 5—Roberts, R. H.....	3.9	4.	3.8	3.9	.....

September					
Capron, A. C.....	3.5	3.7	3.7	3.8	.....
Sheperd, C.....	4.	4.	4.1	4.	4.
Capron, B. A.....	.....	.....	.....	.....	.....
Roberts.....	.....	.....	.....	.....	.....
Marcy.....	3.8	3.8	4.	4.1	3.9
Marcy, P.....	3.4	3.6	3.6	3.7	3.6
Hall & Loston.....	4.	3.9	4.1	4.2	4.

Mr. MERRY, station superintendent testified:

"I attend to the weighing can and take out a sample with a cone-shaped dipper. I do not make the composite test; just take a sample of it; I make a test; do it four times a month, and then average the four tests.

Mr. Ward.—How do read the miniscus, that curve that is in the tube?

Mr. Merry.—I read it; if it is a bad curve, I split it and add it to the circle; I don't read the highest and lowest point. We split the curve on the bottom and add it to the top; take the two together and it makes it about balance, you know. One sags up and other sags down. We take the average of the curves. In testing I should take three or four tablespoonfuls in the dipper. The water is always all shook out of the dipper before I take a sample."

HIGH GROUND DAIRY COMPANY TEST, WOODS CORNERS STATION
ON D. L. & W.

PRATT TOWNSEND, called as a witness, testified:

"I am the station superintendent. We take in milk and ship it; make buttermilk and pot cheese. The buttermilk is made from skim milk. It is pasteurized, then soured and churned. I get \$60 a month and my house rent and milk and butter. The

house is separate from the station. I have another man beside myself. I pay the man that is with me now \$48. The flush is over now, (July, 1916). I worked in creameries before in Pennsylvania. I worked for the Rockdale Creamery in Cherry Valley seven years and learned to test butter fat there. They made casein and the National Milk Sugar Company made milk sugar. I have all the records of the station for two years.

The Station Record

Date	Pounds received	Cans milk shipped	Buttermilk shipped
June 1	13,039	90	12
June 2	13,480	90	12
June 3	13,434	116	15
June 4	13,370	84	15

	Cream shipped	Pot cheese shipped
June 1	5	..
June 2	6	5
June 3	6	7
June 4	3	7

Date	Received	Cans milk shipped	Buttermilk shipped	Cream shipped	Pot cheese shipped
June 5	12,891	127	15	6	....
June 6	12,506	116	15	3	6
June 7	13,339	130	15	....	....
June 8	13,039	101	10	2	....
June 9	13,739	103	10	5	5
June 10	12,909	103	10	5	6
June 11	12,706	100	10	4	....
June 13	12,657	112	....	....	....
June 14	12,580	115	8	7	....
June 15	12,534	127	16	....	....
July 1	10,946	106	25	4	....
July 2	10,632	93	22	....	....
July 3	10,435	106	20	3	....
July 4	10,738	93	5	1	....
July 5	10,486	107	12	....	....
July 6	9,808	87	13	1	....
July 7	8,972	80	18	2	....
July 8	8,848	82	16	2	....
July 9 .....	....	92	19	....	....
July 10	9,048	80	12	3	....
July 11	8,889	89	18	2	....
July 12	8,570	100	2	....	....
July 13	8,210	79	13	....	....

The above record is inserted as a fair illustration of the change in the volume of receipts of milk during the months of June and July in many dairy sections, caused principally by change in dairy production at these particular seasons of the year. It will be observed that receipts of 13,000 pounds on June 1st had fallen to 8,210 pounds on July 13th. Mr. Townsend continues: "We had 32 dairies coming to that plant. I take a sample of the milk every day and make a composite sample and test it at the end of the week. I take the sample out of the weigh vat after it is mixed, so I usually have seven samples in the composite sample. I try and take a sample every day. Some days I skip. Twice a week I make a sediment test and a temperature test and that is generally two days that I don't get a sample for the composite test. I probably take samples for five days in the composite test. After I have taken them, I put them in a jar and presently take them out and test them. I have a glass tube, a pipette that we buy from the dairy company in Norwich, and then we send them to Geneva and have them marked with the State brand. I take a sample in this pipette from the composite sample, put it into the test bottles, measure it in and add sulphuric acid, which we buy at Norwich. The Norwich people get it from Little Falls. They are shook up and put in the tester and run for three minutes first, then two minutes, and then about one minute again. During those times when I am running it, I add water to bring the fat up into the neck. It is probably about 140 or 150. Then I take it out and read the fat. The neck of the bottle is graduated from 1 to 10 per cent. I test 24 samples at once in the tester and use steam. I put the tests in a book. In that book, the tests for June are as follows:

No. of patron	1st test	2nd test	3rd test	4th test
1.....	3.3	3.3	2.9	3.2
2.....	3.4	3.4	3.4	3.4
3.....	3.6	3.6	3.7	3.6
4.....	3.2	3.2	3.2	3.2
5.....	3.2	3.2	3.2	3.2
6.....	4.	4.1	4.2	4.1
7.....	3.8	3.8	3.7	3.8
8.....	3.7	3.8	3.6	3.7
9.....	3.6	3.6	3.3	3.5
10.....	3.5	3.4	3.4	3.4
30.....	3.9	3.9	4.3	4.
31.....	3.4	3.3	3.2	3.3

Mr. Townsend.—“The sixth dairyman is Grove Curtis. His cows are black and white. They look like Holsteins. I tested five times for May.”

No. of patron	1st test	2nd test	3rd test	4th test	5th test
(6) Grove Curtis.....	4.	4.	4.	3.9	4.4
30.....	3.9	.....	.....	.....	.....
<i>April, 1916</i>					
1.....	3.7	3.6	3.7	3.6	3.7
2.....	3.9	3.5	3.5	3.6	3.5
6.....	4.2	4.1	3.9	3.9	4.
<i>March, 1916</i>					
1.....	3.8	3.8	3.8	3.8	3.8
6.....	4.1	4.1	4.1	4.1	.....
<i>February, 1916</i>					
1.....	3.6	3.6	3.6	3.6	3.6
6.....	4.3	4.2	4.3	4.2	4.3
<i>January, 1916</i>					
1.....	3.6	3.6	3.6	3.8	3.6
6.....	4.	4.	4.5	4.3	4.4

Mr. Townsend.—“Patron No. 1 has a small dairy. His name is Hubert Post. He lives a quarter of a mile away from the station. Patron No. 6 lives five or six hundred feet from the station. Neither of them keep pure breds. We buy and pay entirely by this butter fat test; Borden scale; barn score added. All our milk is B milk.”

BORDEN CONDENSED MILK COMPANY TESTS AT NORWICH, N. Y.

GROSVENOR J. ROSS, called and sworn, testified:

“I am employed in the Borden’s factory at Norwich as milk tester since it was built in 1900. Our testing apparatus consists of a Babcock equipment, 24 bottle, centrifugal machine, consisting of pipette, acid measure, hydrometer for testing the solids not fat and pipette for measuring the milk, and 10 per cent. butter fat test bottles operated by steam. My duty is to test all the milk delivered at that station for butter fat. From each daily delivery, I take a sample from each 40 quart can after stirring the 40 quart can and dipping it and take a proportionate sample out and putting it into a cup and then taking a small dipper made for the

purpose and taking an equal amount from each can, first putting it into a copper cup holding about a quart and there it is mingled and from this there is taken a small amount, enough for one sample, say 176 cubic centimeters. It is not convenient to take this sample from the weigh can because there is a cover on the weighing part and it retards the work. You would get the same sort of a sample from the weighing fat as from the cans if you took every particle of milk from the previous dairy out of the can. If you did not, you would get a mingle from the previous dairy. We have a jar with each patron's name on and each day that jar is opened and the sample put in. It is mingled and sealed again. It is a fruit jar with a bale top and a rubber gasket, a glass top and the lever is thrown down thereby sealing the can tight each day after the sample is put in, to prevent evaporation. We put a preservative in the sample jar to prevent its getting sour. The can is set up until the time comes for testing. We test four times per month. We are not infallable. There is a possibility of error, but it does not often happen. The following are some of the tests from our records you ask for. I do not give you the six-tenths and seven-tenths; just the tenths."

Patron	1st test	2nd test	3rd test	4th test	Average
No. 5.....	3.5	3.65	3.7	3.7	.....
No. 10.....	3.8	3.65	3.65	3.8	3.7
No. 15.....	3.8	3.8	3.9	3.65	3.8
No. 20.....	3.6	3.5	3.6	3.45	3.5
Boos.....	.....	4.1	3.8	3.8	3.9
Collier.....	3.3	3.65	3.8	3.6	3.8
Franklin.....	3.8	3.8	3.8	3.8	3.8
McNitt.....	3.2	3.4	3.3	3.2	3.3
Dimick.....	3.7	3.5	3.4	3.35	3.5
Dunkle.....	3.8	4.2	4.	3.8	4.

May

No. 5.....	3.6	3.6	3.55	3.45	3.6
No. 10.....	3.8	4.5	3.9	3.6	3.8
No. 15.....	4.1	4.	4.	3.75	4.
No. 20.....	3.5	3.65	3.65	3.4	3.6
Boos.....	3.75	3.75	3.8	3.3	3.7
Collier.....	3.85	3.8	3.9	3.75	3.8
Franklin.....	3.9	3.95	3.8	3.65	3.8
McNitt.....	3.1	3.4	3.5	3.3	3.3
Dimick.....	3.4	3.8	3.45	3.35	3.5
Dunkle.....	3.8	4.2	4.2	4.2	4.1

Patron	June					Average
	1st test	2nd test	3rd test	4th test		
No. 5.....	3.4	3.45	3.4	3.4		3.4
No. 10.....	3.8	3.8	3.9	3.8		3.8
No. 15.....	3.75	3.6	3.75	3.85		3.7
Boos.....	3.4	3.5	3.45	3.3		3.4
Collier.....	3.8	3.8	3.85	3.8		3.8
Franklin.....	3.8	3.8	3.8	3.8		3.8
McNitt.....	3.5	3.35	3.4	.....		.....
Dimick.....	3.5	3.5	3.65	3.6		3.6
Dunkle.....	3.9	4.	4.1	4.1		4.
<i>Solids, not fat</i>						
No. 20 above.....	8.53	8.70	8.58	.....		.....
Collier.....	8.7	8.74	8.88	.....		.....
<i>Total solids</i>						
No. 20 above.....	<u>12.03</u>	<u>12.31</u>	<u>11.98</u>	<u>.....</u>		<u>.....</u>

ISAAC W. RUSHMORE & COMPANY TESTS AT NORWICH, CHENANGO
COUNTY

C. H. AGAN, called, testified:

"I make the butter fat test twice a month. I take an individual sample twice a month. We pay the same prices as the Borden Condensery at Norwich, except 10 cents per hundred more in June and July, and 20 cents per hundred more in November and December. When I make a test, I set it down and the date I make it in this book. Patron No. 1 is Newton Eldred. We only make a test every two weeks. Patron No. 2 is William Doolan; Patron No. 3 is W. H. Lewis; Patron No. 4, G. H. Boyd; Patron No. 5, Davis Brothers; Patron No. 6, Harry Hadlock; No. 16 is J. R. Mundy; No. 25 is Cleveland & McNitt. I take a sample out of the weigh can and have a composite test every morning. I do not have any 4 per cent. milk delivered there in April, May or June, 1916. I carry that composite test for fifteen days. That is what my boss told me, to make two tests a month. Mr. Baker of the Agricultural Department made the test on June 29th. I asked him if he had just as soon test and he said he would. We figure up and pay on the first test for two weeks and then the second test. There is no averaging of our tests. We take a sample, hold it each day for fifteen days and then at the end of the fifteen days we test that composite sample for butter fat and pay according to the reading of that test without any averaging at all. I then put that down on the sheet, send the sheet to New York, and

at the end of the month the checks are issued. I copy the report I send to New York from this book. I get the checks and give them to the patrons. The agricultural agent just made that test to see how my milk was running. The test book shows as follows:

<i>April</i>			
Patron's No.		1st test	2nd test
No. 1.....		3.5	3.4
No. 2.....		3.4	3.3
No. 3.....		3.3	3.2
No. 4.....		3.6	3.5
No. 5.....		3.6	3.5
No. 6.....		3.3	3.2
No. 16.....		3.7	3.8
No. 25.....		3.9	3.8

<i>May</i>			
No. 1.....		3.5	3.4
No. 2.....		3.4	3.5
No. 3.....		3.1	3.1
No. 4.....		3.6	3.6
No. 5.....		3.6	3.6
No. 6.....		3.4	3.3
No. 16.....		3.8	3.7
No. 25.....		3.7	3.6

<i>June</i>			
No. 1.....		3.5	3.4
No. 2.....		3.4	3.4
No. 3.....		3.1	3.2
No. 4.....		3.5	3.5
No. 5.....		3.5	3.5
No. 6.....		3.3	3.2
No. 16.....		3.6	3.6
No. 25.....		3.6	3.6

SHEFFIELD FARMS, SLAWSON-DECKER COMPANY TEST OF
LUTHER M. HASTINGS' HERD, STAMFORD, DELAWARE COUNTY,
NEW YORK

1916			
		Test	Price per cwt.
January.....		4.33	\$2 10½
February.....		4.3	1 99
March.....		4.3	1 98½
April.....		4.2	1 76
May.....		4.2	1 65
June.....		4.23	1 42½

Barn score above 68.

SHEFFIELD FARMS SLAWSON-DECKER COMPANY TEST, RICHMOND
HILL, SCHENARIE COUNTY

J. M. JAYCOX, called, testified:

"I operate the receiving station of the Sheffield Farms Slawson-Decker Company at Richmond Hill. We buy milk on the butter fat basis. I have here my tests from July 20, 1916, to April 4, 1915. We have 73 patrons on the July list at Richmond Hill. There is a premium of five cents a hundred for the months of April, May and June, and twenty cents per hundred for the months of July, August and September, if milk is delivered at a temperature of 50 or under. We ship our milk in cans and the milk brought to the factory this morning leaves at 3:40 this afternoon and gets into New York about 11:30 to-night. Goes to 130th street where it is mostly pasteurized and bottled and sold from wagons. We voluntarily advanced the price ten cents in April; we have a composite test. About 50 per cent of the cows are grades, Jerseys and Holsteins, and our tests are as high as anywhere in the State.

Mr. Ward.—Mr. Warthmore says that your tests are deliberately exaggerated to a high figure in order to make it impossible for a man with an honest test to do business.

Mr. Jaycox.—I don't test it. It would be very easy to read two or three points on the glass. I tested milk twelve years myself and I know what I did. I gave them just what was coming to them to the best of my ability. I always gave the doubt to the farmer. There is a curve in the milk test; you can give or take one-tenth in reading a test and be perfectly honest. Our instruction is to give it to the farmers always so as to give him a liberal test. We think that better than to send the sample to the Agriculture Department and have it read one-tenth less at the department. Any tester will tell you that you can read a test one-tenth either way. The Cow Testing Association is the only way I know to check the factory. The dairymen at our plant can take a sample from the same sample we test. The cow tester can go right to our plant and test at the same time if he wants to."

Dairyman's name	Per cent fat July 10th	Per cent fat July 20th
1. Glot.....	4.5	4.6
2. Moot.....	4.2	4.2
3. Van Patten.....	5.	5.1
4. Ostrand.....	4.	4.2
5. Davenport.....	5.1	5.
6. Conro.....	4.7	4.6
7. Van Voorhees.....	4.2	4.3
8. Moot.....	4.2	4.2
9. Fraser.....	4.8	4.8
10. Mrs. Moot.....	4.4	4.4
11. Snyder.....	4.4	4.4
12. Farrell.....	4.4	4.3
13. Davis.....	4.6	4.5
14. Fraser.....	4.5	4.3
15. Harris.....	4.6	4.5
16. Snyder.....	4.4	4.6
17. Morgan.....	4.4	4.5
18. Pratt.....	4.9	4.7
19. Ostrander.....	4.3	4.1
20. Smith.....	4.6	4.7
21. McMahon.....	4.3	4.3
22. Empie.....	3.7	3.8
23. Sherbeck.....	4.	4.1
24. Patrick.....	4.8	4.8
25. Harmes.....	4.6	4.7
26. Van Dorn.....	4.	4.4
27. Lockwood.....	4.6	4.6
28. Basner.....	4.3	4.4
29. Wharton.....	4.2	4.
30. Warner.....	4.1	4.2
31. Lape.....	4.4	4.6
32. Palmer.....	4.1	4.2
33. Moot & Son.....	4.2	4.3
34. Fox.....	4.4	4.4
35. Lape.....	4.2	4.4
36. Babcock.....	4.	4.1
37. Houston.....	4.3	4.4
38. Fraser.....	4.4	4.3
39. Fox.....	4.4	4.3
40. Smith.....	4.5	4.3
41. Van Patten.....	4.4	4.4
73. Fink.....	4.4	4.4

1916 AVERAGES

June Test

Patron's number	Average
1.....	4.3
2.....	4.1
3.....	4.76
4.....	4.03
5.....	4.8
6.....	4.6
7.....	4.
8.....	4.16
9.....	4.53
10.....	4.36
11.....	4.4
12.....	4.33

Patron's number	Average
18.....	4.86
19.....	4.2
22.....	3.9
26.....	3.85
30.....	4.2
31.....	4.33
44.....	4.6
41.....	4.56
73.....	3.93
72.....	4.33

May Test

Patron's number	Average
1.....	4.5
2.....	4.13
3.....	5.06
5.....	4.63
6.....	4.33
7.....	3.96
8.....	4.26
9.....	4.6
10.....	4.16
11.....	4.23
12.....	4.36
13.....	4.5
14.....	4.4
15.....	4.66
23.....	3.90
26.....	3.83
38.....	5.96
42.....	4.13
73.....	4.43

April Test

Patron's number	Average
1.....	4.4
2.....	4.2
3.....	5.
5.....	4.5
6.....	4.5
7.....	3.93
8.....	4.26
9.....	4.5
10.....	4.13
11.....	4.33
12.....	4.26
13.....	4.53
14.....	4.36
15.....	4.66
26.....	3.8
38.....	3.96
42.....	4.23
43.....	4.53
61.....	4.96
72.....	4.2
73.....	4.05

SHEFFIELD FARMS TEST AT SOUTH KORTWRIGHT, DELAWARE
COUNTY, DAIRY AVERAGE OF H. K. ROSE, GRADE
AND JERSEYS

January 1, 1913, to December 31, 1914

Month	Pounds	Price	Test	Value
January	18,330	\$2 24	4.8	\$405 34
February	17,307	2 00	5.04	370 49
March	19,494	1 85	4.94	382 64
April	22,575	1 83	4.84	409 67
May	30,450	1 56	4.9	469 69
June	29,360	1 50	4.7	433 20
July	22,715	1 74	4.87	387 98
August	16,022	2 21	5.14	349 43
September	14,592	2 35	5.24	341 48
October	16,015	2 54	5.01	404 98
November	14,140	2 52	5.04	354 67
December	15,844	2 66	5.14	421 15
Total production.....	236,844	.....	.....	.....
Total proceeds of milk.....	.....	.....	.....	\$4,730 72
Average test.....	.....	.....	4.98	.....
Average price.....	.....	\$2 08	.....	.....

BORDEN COMPANY TESTS AT DELHI, DELAWARE COUNTY

Name	First week	Second week	Third week	Fourth week	Average
Amos, J. W.	4.6	4.7	4.8	4.8	4.7
Amos, A. G.	4.6	4.5	4.5	4.5	4.5
Anderson	4.6	4.6	4.6	....	4.6
Blake	4.8	4.8	4.8	4.8	4.8
Every	4.4	4.4	4.4	4.4	4.4
Dodd	5.1	5.1	5.5	5.5	5.3
Russell	5.	5.2	5.2	5.1	5.1
Bruce	4.2	4.3	4.3	4.3	4.3
Snyder	4.6	4.6	4.7	4.7	4.7
Yeomans	4.4	4.3	4.4	4.4	4.4
Amos	4.9	4.9	4.9	4.9	4.9
Every, R. L.	4.4	4.2	....	....	4.3

F. X. BAUMERT & COMPANY TESTS, ANTWERP, JEFFERSON
COUNTY, 136 PATRONS

Mr. GIBBS, the superintendent, testified:

“The milk we receive is made into Neuchatel, miniature cream, Pimento, Camembert, Lunch, Dinar, Isigny, Brie, Limburger; all made out of whole milk except the Isigny, which is made out of skim milk, and Crown Brand Neuchatel made out of part skim. We employ a well known dairyman to make the tests,—a local resident in whom we think the dairymen have confidence. We

pay him so much a week just for coming to the factory and making the test.

At composite test, drip test, of the 136 dairymen who brought milk to our factory, June 1, 1915, showed butter fat content of .35. This drip test is taken as the milk is being taken in every morning. We test the milk for butter fat, each dairy twice a month. On that date, the individual tests were as follows:

Patron's number	Test
15.....	3.3
42.....	3.4
30.....	3.5
23.....	3.6
10.....	3.7
3.....	3.8
1.....	4.4

June 15, drip test, 3.4.

Individual test

1.....	2.9
9.....	3.
3.....	3.1
26.....	3.2
36.....	3.3
39.....	3.4
15.....	3.5
12.....	3.6
4.....	3.7
1.....	3.8

July 1st, drip test, 3.4.

Individual test

2.....	2.9
3.....	3.
11.....	3.1
30.....	3.2
32.....	3.3
26.....	3.4
21.....	3.5
8.....	3.6
1.....	3.7

July 18, composite drip test, 3.3.

Individual test

1.....	2.6
.....	2.8
.....	2.9
10.....	3.
17.....	3.1
27.....	3.2
33.....	3.3
25.....	3.4
20.....	3.5
8.....	3.6
.....	3.7
.....	3.8

Mr. Ward.—What price did this man whose milk tested 2.9 get?

Mr. Gibbs.—He would receive for June milk \$1.30 per hundred, less 15 cents deduction. That is five points below. The June price was \$1.45 and his test brought it down to \$1.30. The man whose milk tested 2.6 has not got his pay for it yet. We had three patrons below 3, one of 2.6, one of 2.8, and one of 2.9. We don't ignore those low tests, but pay them according to their price. He got \$1.21 on the 2.6 test for June milk.

MUTUAL McDERMOTT DAIRY CORPORATION TESTS AT CANTON,
ST. LAWRENCE COUNTY

JAMES DUNDON, called before the Committee, testified:

“We pay the same price for B and C milk. We make a composite test twice a month. We have 56 dairies. Give all the dairies the same test.

Mr. Ward.—What do you do with the curve in the test tube?

Mr. Dundon.—The curve?

Mr. Ward.—We do not understand that the butter fat lies level in the test tube, but it has got a curved surface.

Mr. Dundon.—Yes.

Mr. Ward.—What do you do with the curve?

Mr. Dundon.—Divide it.

Mr. Ward.—What do you do with it when you are testing? Suppose you are testing milk and you had that curve in the test bottle, what would you do to it to know how much to give the dairyman?

Mr. Dundon,—I don't really understand what you mean.

Mr. Ward.—The cream doesn't lie level in the test tube, you understand that it has got a curved surface, the butter fat in the test tube.

Mr. Dundon.—Comes up in it?

Mr. Ward.—Yes. Which do you allow for? What do you allow for when you are testing?

Mr. Dundon.— Read it on the bottle.

Mr. Ward.— Which side do you read of it, the low side or the high side?

Mr. Dundon.— Read between.

SHEFFIELD FARMS SLAWSON-DECKER COMPANY TESTS AT
MALONE STATION

Mr. BURGDUFF, superintendent, called before the Committee, testified:

“ We test three times a month and average the three. As the tester reads them he copies them off in this sheet and I take it in my possession in order that when he makes the next test, he does not refer to the last one. This is the test book. No. 1 is J. P. Hutchins, test July 28th, 3.7; test on July 10, 3.9; test on July 19th, 3.7. That gave him 3.8.

Mr. Ward.— If he had two 3.7 and one 3.9, divided by three, will it give 3.8?

Mr. Burgduff.— No, sir. The real average would have been 3.766. Mr. Hutchins got no pay for the two-thirds of a point of butter fat. John Childs is dairyman No. 2. If a dairyman should test 3.3 something like that, we would give him 3.4.

Mr. Ward.— Why would you do that, to encourage him?

Mr. Burgduff.— Yes.

Mr. Ward.— That is, if a man was low, it was read high; if a man was high, it was read low?

Mr. Burgduff.— No. Dairyman No. 2 averaged 3.766 and we allowed him 3.8, although his average was 3.766. Our prices are based on 3.8 and we try to bring them up.”

*Average Tests — July — Sheffield Farms, Slawson-Decker
Company Station at Malone*

3.8; 3.9; 3.9; 3.9; 4; 3.9; 3.9; 3.7; 3.7; 3.7; 3.8; 3.9; 3.8;
3.9; 3.7; 3.8; 3.9; 3.9; 3.7; 3.7; 3.7; 3.8; 3.9; 3.4; 3.8; 3.8; 3.8;
4; 3.8; 3.9; 3.7; 3.4; 3.8; 3.7; 3.7; 3.7; 3.9; 4.5; 3.8; 3.9; 3.8;
3.8; 4.2; 3.9; 3.9; 3.8; 3.9; 4; 4; 3.8; 4.1; 3.9; 3.9; 3.9; 3.8;

3.9; 3.8; 4.4; 4.4; 3.7; 3.8; 3.8; 3.9; 3.9; 4.4; 3.9; 3.9; 3.7; 3.8;
3.8; 3.9; 3.8; 3.9; 3.7; 3.9; 3.9; 3.7.

F. Gillette's Test

July 28.....	4.8
July 19.....	4.3
July 10.....	4.6
That gives 4.5 $\frac{1}{2}$. He was paid.....	4.5

R. F. STEVENS COMPANY TEST, CLINTON, N. Y.

Mr. MYERS, station superintendent, called, testified:

"I test the milk four times a month, take samples and use a Babcock tester. I take a sample from the weigh can. That was the handiest and best and most satisfactory way. I don't know anything about the drip. I tested it that afternoon. Dairyman No. 1, Brackett & Kidney. I made four tests of Brackett & Kidney's milk in July. They were as follows: 3.7; 3.9; 3.7; 3.8. The average was 3.77 and that was what they were allowed. They allow everything over one-half a point. If it is 3.75 they allow 3.8. If it is under 3.75, they allow it 3.7. Dairyman No. 7 had 3.95 and they allowed him 4. They allow them a full point for one-half and take the less than half. Our price for June, 1916, at Clinton, N. Y., for dairies scoring 68 was \$1.19 for all milk up to 3.7. Ten cents was added for milk over that, so that a man producing 4.7 milk got the same price as the man producing 3.8 milk, and the man producing 3.3 milk got the same price as the man producing 3.7 milk. Prior to April, we paid 3 cents a point up and down, but in April the prices were changed to the present scale."

SCRIBA CENTER CREAMERY COMPANY

FLOYD LINDALL, manager, called before the Committee, testified:

"This company is owned by the farmers. We separate it and ship the cream to New York, some to R. F. Stevens, some to Beake's and some to the High Ground. We make the skim milk into casein. The patrons get paid for whatever the milk tests in butter fat. Mr. Isabell does the testing. We get about 30,000 pounds a day or a little better. We separate all the milk, pasteurize the cream and ship it and make the skim milk into casein. We

set the separator so it will run about 41 or 42 per cent. to get what we want in cream and then we bring it up by adding enough milk. Our tests generally agree with the purchasers' tests. The patrons get all, except about five cents per pound; that goes to the company for manufacture. O. S. Burt was one of our patrons. In April he had 55.99 pounds of butter fat and was paid for it at the rate of .4401 or 26.50 for fifteen days' milk. In the last fifteen days he had 5,287 pounds and 61.32 pounds of butter fat and he was paid at the rate of .4577 for it. He got 45 cents per pound for his butter fat in April. Many go better than that. May, they got .39. June he was paid .3931 for butter fat. We pay this way, it is according to the milk, how much milk a man delivers. One man delivers 774 pounds of milk and he had 30.96 pounds of butter fat. Another man had 1,714 pounds of milk and 59.99 pounds of butter fat. We get the ratio and multiply it by the number of pounds of milk."

SCRIBA CREAMERY TEST, APRIL

Dairyman's name	1st test	2nd test
Bateman.....	3.9	3.5
Waugh.....	4.1	4.1
Guyette.....	3.7	3.6
Parker.....	3.5	3.7
Fredenburg.....	3.8	3.8
Year.....	3.3	3.5

May

Bateman.....	3.4	3.7
Waugh.....	4.4	4.1
Parker.....	3.9	4.
Year.....	3.5	3.4
Fredenburg.....	3.6	3.8
Guyette.....	3.5	3.6

June

Bateman.....	3.5	3.7
Waugh.....	4.1	4.2
Parker.....	3.7	3.7
Year.....	3.6	3.5
Fredenburg.....	3.5	3.5
Guyette.....	3.5	3.6

July

Bateman.....	3.7	3.8
Waugh.....	4.1	4.4
Parker.....	3.7	3.7
Year.....	3.5	3.8
Fredenburg.....	3.4	3.5
Guyette.....	3.5	3.3

Mr. Lindall.— Mr. Dick has got a dairy mostly red and white.
His tests were as follows:

April, first half	3.8
second half	4.2
May, first half	4.1
second half	4.
June, first half	3.9
second half	4.2
July, first half	3.9
second half	4.2

Mr. Ludd's tests were as follows:

April, first half	4.
second test	3.4
May, first test	3.8
second test	4.1
June, first test	4.
second test	4.
July, first test	3.7
second test	3.8

Mr. Wilcox's tests were as follows:

April, first test	4.4
second test	4.1
May, first test	4.4
second test	4.5
June, first test	4.4
second test	4.4
July, first test	4.3
second test	4.3

B. G. Jones tested:

	1st test	2nd test
April	4.3	4.3
May	4.6	4.4
June	4.2	4.4
July	4.1	4.

Taylor:

April	3.8	3.8
May	3.6	3.8
June	3.8	3.7
July	3.7	3.7

Prior:

April	4.6	4.1
May	4.1	4.4
June	4.2	4.4
July	4.1	4.4

Griswold:

April	4.1	4.3
May	4.3	4.3
June	4.2	4.1
July	4.3	4.4

Brown:

April	4.5	4.9
May	4.8	3.6
June	3.5	3.2
July	3.3	3.4

Murphy:

	1st test	2nd test
April.....	4.1	3.9
May.....	3.8	4.
June.....	4.	3.8
July.....	3.9	4.

Rector:

April.....	3.6	3.1
May.....	3.6	3.5
June.....	3.7	3.5
July.....	3.6	3.7

Rapelye:

April.....	3.7	3.4
May.....	3.4	3.6
June.....	3.7	3.7
July.....	3.8	3.9

Richardson:

April.....	3.7	3.7
May.....	4.1	3.7
June.....	3.6	3.6
July.....	3.9	4.

Davis:

April.....	4.5	4.4
May.....	4.6	4.5
June.....	4.5	4.6
July.....	4.4	4.3

Manwarring:

April.....	3.7	3.6
May.....	3.6	4.2
June.....	4.4	4.4
July.....	4.3	4.3

Toy:

April.....	3.6	3.5
May.....	4.0	3.9
June.....	3.8	3.7
July.....	3.7	3.7

Lauton:

April.....	3.7	3.8
May.....	4.1	4.
June.....	3.8	3.9
July.....	4.	4.

Allen:

April.....	3.7	3.9
May.....	4.4	4.2
June.....	4.4	4.4
July.....	4.4	4.1

Mr. Lindall.— Allen's test for March was as follows:

March.....	3.2	3.5
February.....	3.6	3.6
January.....	4.5	4.1

INTERNATIONAL MILK PRODUCTS COMPANY, COOPERSTOWN, N. Y.

Tests.

Mr. HOBEY, manager, called before the Committee, testified:

"Our tests are made by the chemist. He does not know whose milk he is testing. All he ever sees is the number. We buy in all our plants on the butter fat basis. We changed from a flat rate to a butter fat basis because the milk kept getting poorer every year, lower in fat, because they were all breeding for milk and didn't pay any attention to what the cows tested and we found we were getting milk that was below the State standard.

TESTS, 1914

September

Patron	First test	Second test	Average
No. 1.....	3.6	3.2	3.4
Kinney.....	3.9	3.7	3.8

October

No. 1.....	3.4	3.1	3.25
Kinney.....	3.7	3.5	3.6

November

No. 1.....	3.2	3.2	3.2
Kinney.....	3.4	3.5	3.45

December

No. 1.....	3.2	3.1	3.15
Kinney.....	3.6	3.5	3.55
Jarvis.....	2.8	3.	2.9
Barnum.....	4.6	4.3	4.45
Van Dusen.....	3.8	3.5	3.65
Blencoe.....	3.8	3.4	3.6
Clark.....	4.5	4.	4.25
Moakley.....	4.8	4.1	4.45
Pershell.....	4.3	4.4	4.35
Stokes.....	3.9	3.8	3.85
Ekler.....	4.	4.2	4.1
Cunningham.....	4.2	5.6	4.9
Smart.....	4.3	4.8	4.5
Hopkins.....	4.8	4.2	4.5
Clark.....	4.5	4.2	4.35

1915				
	January	First test	Second test	Average
Patron				
No. 1.....		3.	3.2	3.1
Kinney.....		3.4	3.6	3.5
Jarvis.....		3.2	3.1	3.15
Barnum.....		4.	....	4.
Van Dusen.....		3.4	3.7	3.55
Blencoe.....		3.3	3.4	3.55
Clark.....		3.3	3.7	3.5
Moakley.....		3.8	3.	3.4
Pershell.....		3.8	....	3.8
Stokes.....		3.4	4.1	3.75
Ekler.....		3.9	4.1	4.
Cunningham.....		4.3	4.	4.15
Van Duzen.....		3.6	3.7	3.65
February				
No. 1.....		3.2	3.1	3.15
Kinney.....		3.2	3.	3.1
Jarvis.....		3.	3.4	3.2
Nichols.....		2.8	2.8	2.8
Moakley.....		3.	3.4	3.2
April				
No. 1.....		3.2	3.5	3.25
Jarvis.....		3.3	3.2	3.25
Ingalls.....		3.6	3.1	3.35
Moakley.....		3.4	3.5	3.45
Cunningham.....		3.6	3.2	3.4
May				
No. 1.....		3.3	3.1	3.2
Jarvis.....		3.3	3.5	3.4
Blencoe.....		3.3	3.2	3.25
Clark.....		3.4	3.4	3.4
Moakley.....		3.4	3.4	3.4
Cunningham.....		3.	3.4	3.2
June				
No. 1.....		3.4	3.2	3.3
Jarvis.....		3.4	3.5	3.45
Ingalls.....		3.4	3.8	3.6
Blencoe.....		3.3	3.6	3.45
Moakley.....		3.3	3.2	3.25
July				
No. 1.....		3.3	3.3	3.3
Jarvis.....		3.2	3.4	3.3
Ingalls.....		3.5	3.3	3.4
Blencoe.....		3.4	3.5	3.45
Moakley.....		3.4	3.3	3.35
Cunningham.....		3.4	3.5	3.45
August				
No. 1.....		3.4	3.2	3.2
Jarvis.....		3.3	3.3	3.3
Ingalls.....		3.7	....	3.7
Blencoe.....		3.8	3.8	3.8
Moakley.....		3.6	3.6	3.6
Cunningham.....		3.8	3.9	3.85
September				
No. 1.....		3.5	3.5	3.5
Kenney.....		4.1	....	4.1
Jarvis.....		3.4	3.8	3.6
Blencoe.....		3.8	3.7	3.75
Moakley.....		3.8	3.8	3.8
Cunningham.....		4.1	4.2	4.15

Mr. HobeY.—Beginning October, 1915, we based our price on three per cent. milk with three cents additional for each additional point, and ten cents less for the barn score less than 68.

1915 TESTS

October

Patron	First test	Second test	Average
No. 1.....	3.5	3.4	3.45
Jarvis.....	3.6	3.3	3.45
Blencoe.....	3.4	4.	3.7
Clark.....	4.1	4.1	4.1
Moakley.....	3.7	4.	3.85
Cunningham.....	4.	4.3	4.15

November

No. 1.....	3.8	3.2	3.5
Jarvis.....	3.2	3.5	3.35
Blenco.....	3.7	3.2	3.45
Moakley.....	4.	4.	4.

1916 TEST

January

Patron	First test	Second test	Average
No. 1.....	3.4	3.3	3.55
Jarvis.....	3.6	3.3	3.45
Blencoe.....	3.3	4.	3.65
Moakley.....	4.1	4.1	4.1
Cunningham.....	4.2	4.	4.1

February

No. 1.....	3.3	3.4	3.3
Jarvis.....	3.2	3.2	3.2
Blencoe.....	3.1	3.	3.05
Moakley.....	3.8	4.1	3.95
Cunningham.....	4.1	3.5	3.8

March

No. 1.....	3.3	3.7	3.5
Jarvis.....	3.3	3.2	3.25
Blencoe.....	3.	3.	3.
Clark.....	3.9	3.9	3.9
Moakley.....	4.	3.9	3.95
Cunningham.....	3.5	3.2	3.35

April

Blencoe.....	3.2	3.1	3.15
Moakley.....	3.5	3.5	3.5
No. 1.....	3.5	3.6	3.55
Jarvis.....	3.4	3.2	3.3

LAURENS MILK TO THE SAME STATION

1916

April

Patron	First test	Second test
Crause.....	4.2	4.3
St. John.....	4.6	4.6
Parish.....	4.	4.
Knight.....	4.4	4.4
Platz.....	4.	4.
Comstock.....	4.2	4.2
Brightman.....	4.3	4.1
Anderson.....	4.1	4.3
Eldred.....	4.1	4.1
Williams.....	4.1	4.2
Cook.....	3.8	....
Webster.....	4.8	4.7
Hotaling.....	3.9	....
Cranston.....	4.5	4.4
Hand.....	4.3	4.1
Tully.....	4.6	4.2
Harrison.....	4.	4.
Straight.....	4.6	4.5
Markmaster.....	4.5	4.4
Dyer.....	4.5	4.5
Anderson.....	4.5	4.3
Richards.....	4.5	4.4
Jordan.....	4.3	4.4
Hand.....	4.5	4.5
Baker.....	4.	4.
Herring.....	3.8	3.8
Green.....	4.2	4.2
McClelland.....	4.5	4.5

Perkins Brothers' April test: 3.8; 3.7; May, 3.8; 3.8; June, 3.8; 3.8; July, 3.9; 3.7. Holmes, April, 3.5; 3.5; May, 3.5; 3.5; June, 3.5; 3.5; July, 3.6; 3.6.

Mr. Ward.—That is quite a uniform test that a dairy should test three months there in succession the same thing, don't you think so?

Mr. Haight.—Yes, it seems to run uniform.

Mills & Saxton, April, 3.7; 3.6; May, 3.7; 3.6; June, 3.7; 3.7; July, 3.8; 3.8. Short, April, 3.3; 3.3; May, 3.3; 3.4; June, 3.5; 3.5; July, 3.6; 3.8. Sherman, April, 3.6; 3.6; May, 3.5; 3.5; June, 3.5; 3.5; July, 3.5; 3.6. Oliver, April, 3.4; 3.3; May, 3.4; 3.5; June, 3.5; 3.5; July, 3.5; 3.4. Crawford, April, 3.6; 3.5; May, 3.4; 3.6; June, 3.6; 3.6; July, 3.8; 3.89. Woodcock, April, 3.6; 3.6; May, 3.7; June, 3.6; 3.6; July, 3.6. Lingner, April, 3.5; 3.4; May, 3.4; 3.5; June, 3.5; 3.5; July, 3.5; 3.6. Craw-

ford, 3.6; 3.5; May, 3.4; 3.6; June, 3.6; 3.6; July, 3.8; 3.9. Dubbins, April, 3.6; 3.6; May, 3.5; 3.5; June, 3.6; 3.6; July, 3.6; 3.6; July, 3.6; 3.8. Sargent, April, 3.6; 3.6; May, 3.6; 3.5; June, 3.6; 3.5; July, 3.5; 3.5. Cobb, April, 3.6; 3.5; May, 3.5; 3.5; June, 3.5; 3.5; July, 3.6; 3.6. Dorsweet, April, 3.4; 3.4; May, 3.3; 3.5; June, 3.5; 3.5; July, 3.6; 3.6. Simonson, April, 3.8; 3.8; May, 3.8; 3.9. Monaghan, April, 3.4; 3.3; May, 3.3; 3.3; June, 3.4; 3.4; July, 3.5; 3.7. Meaney, April, 3.6; 3.5; May, 3.4; 3.5; June, 3.6; 3.5; July, 3.6; 3.8. Daily & Thompson, April, 3.5; 3.5; May, 3.4; 3.5; June, 3.5; 3.5; July, 3.6; 3.8. Woodrow, April, 3.7; 3.7; May, 3.6; 3.6; June, 3.6; 3.6; July, 3.7; 3.7. Wilson, May, 3.3; 3.4; June, 3.4; 3.4; July, 3.6; 3.6. Cole, April, 3.5; 3.5; May, 3.5; 3.6; June, 3.5; 3.6; July, 3.7; 3.8. Borden, April, 3.5; 3.6; May, 3.5; 3.6; June, 3.6; 3.6; July, 3.7; 3.8. Jewell, April, 3.9; 3.9; May, 3.9; 3.8; June, 3.8; 3.8; July, 3.8; 3.9. E. M. Jewell, April, 4.2; 4.2; May, 4.3; 4.3; June, 4.4; 4.5; July, 4.5; 4.7. Kilts, April, 3.5; 3.5; May, 3.4; 3.4; June, 3.4; 3.4; July, 3.5; 3.5.

Mr. Ward.—There are four months, April to July, with eight tests, every one of them either 3.4 or 3.5 composite test. Is that usual?

Mr. Haight.—Not ordinarily, no.

Mr. Ward.—Well, now, here is Sargent's eight tests from April to July, all 3.6 or 3.5.

Mr. Haight.—Depends, of course, on the condition of the dairy, when they are coming in and all, I suppose. Some cows keep freshening and it makes a difference.

MAX BLUM'S FACTORY, PHOENIX MILLS, OTSEGO COUNTY, N. Y.

Mr. NANINGA, superintendent, called before the Committee, testified:

"I run the Max Blum's milk factory at Phoenix Mills and make the tests. I make the tests twice a month. I have a record of my tests, as follows:

March 1-15, 1916.

Patron No.	Test
1.....	3.2
2.....	3.6
3.....	3.5
4.....	3.4
5.....	4.4
8.....	3.4
9.....	3.
11.....	3.
17.....	4.5
33.....	4.8

March 15-31

1.....	3.2
2.....	3.2
3.....	3.4
4.....	3.2
5.....	4.4
8.....	3.3
9.....	3.7
11.....	3.
17.....	4.6
18.....	3.7
33.....	4.6

April 1-15

1.....	3.
2.....	3.
3.....	3.4
4.....	4.6
5.....	3.2
8.....	4.
9.....	3.4
12.....	3.2
13.....	3.2
14.....	3.4
15.....	4.

April 15-30

1.....	3.
2.....	3.
3.....	3.4
4.....	4.7
5.....	3.2
8.....	3.8
9.....	3.4
11.....	3.3
12.....	3.2
13.....	3.
14.....	3.2
15.....	4.
16.....	3.2

May 1-15

1.....	3.1
2.....	3.2
3.....	3.4
4.....	4.7
5.....	3.
6.....	4.
8.....	4.
9.....	3.2
11.....	3.5
12.....	3.5
13.....	3.
14.....	3.2
15.....	4.

May 16-31

Patron No.	Test
1.	3.
2.	3.
3.	3.
4.	4.4
5.	3.
6.	4.2
7.	3.8
8.	3.5
9.	3.5
10.	3.2
11.	3.2
12.	3.3
13.	4.1
14.	3.1
15.	3.4

June 1-15

1.	3.1
2.	3.2
3.	3.3
4.	4.4
5.	3.2
7.	4.4
8.	4.
9.	3.5
10.	3.10
11.	3.4
12.	3.4
13.	3.3
14.	3.5
15.	3.5
16.	3.6

June 16-30

1.	3.
2.	3.5
3.	3.4
4.	4.5
5.	3.
6.	4.4
7.	4.2
8.	3.4
9.	3.4
10.	3.
11.	3.2
12.	3.2
13.	4.
14.	4.
15.	4.4
16.	3.4

Mr. Ward.— Now, there is No. 15, the first half of June was 3.5; the last half of June was 4.4.

Mr. Naninga.— He got new cows in by that time. If I remember, he told me so.

Mr. Ward.— That accounted for his increase in nine points?

Mr. Naninga.— Yes.

Test July 1-15

1	3.1
2	3.5
3	3.4
4	4.5
5	3.2
7	4.4
8	4.3
9	3.5
11	3.4
12	3.1
13	3.4
14	3.4
15	4.3
16	3.5
17	3.5

July 16-31

1	3.4
2	3.6
3	3.7
4	4.8 and 5

Mr. Ward.— How did you come to make two tests ?

Mr. Naninga.— We paid him 4.9.

Mr. Ward.— Who is that ?

Mr. Naninga.— Hans Hansen.

Mr. Ward.— Did some of his milk test 5 ?

Mr. Naninga.— Yes, and some 4.8. First it tested 4.8.

Mr. Ward.— Don't you keep a regular composite test ?

Mr. Naninga.— Yes.

Mr. Ward.— You don't test the composite test twice ?

Mr. Naninga.— No, sometimes we take a sample out of the can.

Mr. Ward.— Now, are there any others you paid a little higher or gave them a higher test, except Hansen ?

Mr. Naninga.— No.

Mr. Ward.— How did you come to give it to Hansen ?

Mr. Naninga.— Because he told me I made a mistake in his test and he wanted to have his test or to take the milk some place else; that little bit of money that amounted to I rather keep a patron than lose him. That was in June, but I told him a little bit later again, because Mr. Hansen always thinks we beat him.

BORDEN MILK COMPANY TEST AT CHERRY VALLEY, JULY, 1916.

Patron	Test
1.....	3.6
2.....	3.8
3.....	4.
4.....	3.6
5.....	3.9
6.....	4.
7.....	3.6
8.....	3.7
9.....	3.9
10.....	3.9

June, 1916

1.....	3.7
2.....	3.7
3.....	4.1
4.....	3.6
5.....	3.9
6.....	4.
7.....	3.6
8.....	3.7
9.....	4.
10.....	4.1

May, 1916

1.....	3.5
2.....	3.7
3.....	3.7
4.....	3.6
5.....	3.7
6.....	3.7
7.....	3.6
8.....	3.6
9.....	3.6
10.....	4.

April

1.....	3.7
2.....	3.7
3.....	3.8
4.....	3.6
5.....	3.6
6.....	3.7
7.....	3.8
8.....	3.7
9.....	3.7
10.....	3.8

BORDEN MILK COMPANY TEST, EDMESTON, OTSEGO COUNTY

Dairyman	<i>Averages</i>				
	April	May	June	July	August
Arnold.....	3.5	3.5	3.3	3.4	3.6
Ainsworth.....	3.6	3.8	3.8	3.7	3.8
Barrett.....	4.1	4.2	3.5	3.9	.....
Bancroft.....	3.6	3.6	3.4	3.5	.....
Boynton.....	3.9	3.8	3.8	3.7	.....
Wilson.....	3.7	3.7	3.5	3.5	.....
R. R. Boynton.....	3.5	3.4	3.3	3.4	.....
W. B. Boynton.....	4.1	3.9	3.7	3.7	.....
Bennett.....	3.6	3.4	3.3	3.3	.....
Bentwell.....	3.9	3.8	3.7	3.8	.....
Dooley.....	4.1	4.	3.7	3.9	.....
Johnson.....	3.6	3.5	3.5	3.4	.....
Hood.....	4.4	3.9	3.9	4.	.....
Jacobs.....	4.5	4.6	4.5	4.3	.....
Johnson.....	3.7	4.	4.2	4.1	.....
Peck.....	4.1	4.3	4.3	4.3	.....
Parker.....	3.9	4.1	3.9	3.9	.....
West.....	3.6	3.5	3.5	3.6	.....
Truesdale.....	3.8	3.9	4.1	4.2	.....
Truesdale No. 2.....	3.6	3.7	3.5	3.6	.....
Talbot.....	3.9	3.7	3.8	3.8	.....

BORDEN MILK COMPANY, BURLINGTON FLATS, JULY

<i>Average</i>		<i>Average</i>	
Burdick.....	3.4	Houston.....	3.3
Bixby.....	3.4	Johnston.....	3.4
Burdick.....	3.4	Jones.....	3.4
Branch.....	3.4	Kohn.....	3.4
Chapin.....	3.5	Link.....	3.7
Chase.....	3.5	Lewis.....	3.3
Taylor.....	3.6	Michaels.....	3.7
Pitch.....	3.4	Perkins.....	3.3
Pitch, F. A.....	3.5	Parker.....	3.7
Croton.....	3.4	Richards.....	3.3
Garfield.....	3.4	Talbot.....	3.5
Hall.....	3.4	Chase.....	3.3
Merritt.....	3.5	Telford.....	3.3
House.....	3.8	Wright.....	3.6

Mr. CARLTON, superintendent, testifies:

"There is only five points difference in all those thirty-two dairies at Burlington Flats, on those averages from 3.3 to 3.8. Those tests are all a composite test; sample taken daily and tested once a week."

<i>June, 1916, Averages, Burlington Flats</i>		<i>June, 1916, Averages, Burlington Flats</i>	
Bixby.....	4.	Pitch, F. A.....	3.9
Burns.....	3.7	Martin.....	4.
Williams.....	4.	Martin, C. D.....	4.
Chapin.....	3.8	Garfield.....	3.9
Chase.....	3.8	Hall.....	3.8
Chase, C. H.....	3.4	Merritt.....	3.8
Chase, S. W.....	3.7	Hinds.....	3.6
Pitch.....	3.4		

G. N. SLOAN, MORAVIA, ELGIN CREAMERY COMPANY TEST AND PRICES.

G. N. SLOAN, called, testified:

"I live in Moravia and run the creamery. We make up the milk for the patrons into cheese all summer and butter in the winter. We make the cheese for a cent and a half a pound and the butter for three cents a pound. We sell our product to D. B. Stewart & Company, wholesale grocers, on the basis of the average New York market. I find out what the average is from the market papers, 'The Journal of Commerce,' 'Commercial Bulletin,' and Urner & Barry's Prices. They put out a price current. Stewart & Company take their price from the papers. They pay us one-eighth under average 'Fancy Quotations,' as reported in the papers. The last quotation was 17½, so we got 17 3/8. In July, our patrons got 35 cents a pound for butter fat. That would be \$1.40 per hundred, about, for milk. We test the milk and buy on the butter fat tests. We make two tests a month from a composite sample. Our tests were as follows:

Westfield.....	3.65	Cashin.....	3.8
Schaefer.....	3.6	Pratt.....	4.
Kirkendoll.....	3.7	Rowe.....	3.4
Wood.....	3.6	Turner.....	4.3
Sherman.....	3.9	Erb.....	4.3
Ennis.....	3.5	Jennett.....	4.
Adams.....	4.	Hobart.....	4.
Kirkendoll, B.....	3.8	Dunnie.....	3.7
Wright.....	3.8	Ennis.....	3.5
Wheeler.....	3.8	Harris.....	3.4
Devine.....	3.2	Dugan.....	3.6
Dean.....	3.	Wrisley.....	4.8
Marcus.....	3.7	Myers.....	3.7
Morris.....	4.3	Brockway.....	4.2
Bennett.....	3.7		

MERRELL-SOULE COMPANY'S TESTS, FREWSBURG, CHAUTAUQUA COUNTY, N. Y., BI-MONTHLY, 1915

Patron No. 1: 3.35; 3.4; 3.7; 4.1; 3.8; 4.3; —; —; —; 3.6; 3.5; 3.3; 3.5; 3.1; 2.83.

Same patron, May to September twice a month: 3.3; 3.1; 3.2; 3.2; 3.2; 3.45.

Patron No. 1: 4.0; 4.0; 4.35; 4.5; 4.25; 4.55; 4.5; 4.55 4.25; 4.4; 4.1; —; —; —; —; —; —; —; —; 3.5; 3.45; 3.65; 3.65; 3.9. (The last 3.9 being the test from September 1-15, 1916.)

Patron No. 11, beginning September 1, 1915, made bi-monthly for the year: 4.6; 5.0; 5.2; 5.15; 5.4; 5.35; 4.5; 4.2; 4.6; 4.0; 4.0; 4.4; 3.9. (The

3.9 test being March 16-31, 1916.) 4.2; 4.0; 4.3; 4.25; 4.5; 4.4; 4.3; 4.5; 4.5; 4.3; 4.85. The last test being September 1-15, 1916.)

Patron No. 30, commencing September 1, 1915, bi-monthly: 3.9; 4.1; 4.3; 4.6; 4.5; 4.4; 4.6; 4.1; 3.9; 4.4; 4.0; 3.75; 3.15; 3.5; 3.4; 3.2 (being the last test for April, 1916); 3.45; 3.45; 3.5; 3.55; 3.6; 3.55; 3.7; 3.7; 3.8.

Patron No. 29, beginning September 1, 1915, bi-monthly for twelve months: 4.1; 4.4; 4.5; 4.3; 4.35; 4.2; 4.1; 4.3; 4.2; 4.1; 4.0; 4.15; 3.95; 4.0; 3.8; 3.9 (the last being the test of April, 1916); 4.0; 3.8; 3.9; 3.7; 3.85; 4.0; 4.0; 4.15; 4.2.

BORDEN COMPANY'S TEST AT FRANKFORT, HERKIMER COUNTY, N. Y., MONTH OF SEPTEMBER, 1916

Average Test

4.1; 4.1; 4.0; 3.8; 3.7; 3.8; 4.1; 3.4; 3.9; 4.2; 4.1; 4.2; 4.3; 4.6; 4.0; 4.5; 3.7; 3.9; 4.4; 4.4; 4.3; 4.3.

Same dairyman for May, 1916, in same order: 3.5; 3.6; 3.3; 3.5; 3.4; 4.0; 3.1; 3.2; 3.2; 3.4; 3.4; 3.8; 3.3; 3.5; 3.4; 3.4; 3.3; 3.9; 3.4; 3.4; 3.4; 3.4; 4.2; 4.2; 4.2; 3.3; 3.5; 3.5; 3.6; 3.4; 3.4; 3.4; 3.8.

BORDEN'S CONDENSED MILK COMPANY AT FORT PLAIN, N. Y., BUTTER FAT TEST

Butter Fat Test

Dairyman		First test	Second test	Third test	Fourth test
F. W. Border,	April.....	3.2	3.3	3.3	3.1
	May.....	3.2	3.1	3.2	3.5
	June.....	3.2	3.2	3.2	3.2
	July.....	3.2	3.2	3.2	3.2
	August.....	3.3	3.2	3.4	3.3
	September.....	3.2	3.2	3.2	3.4

Dairyman		First test	Second test	Third test	Fourth test	Average	Price
H. B. Berry, 1916.	September....	3.5	3.5	3.5	3.8	3.6	\$1 49
	October.....	3.6	3.7	3.7	3.7	3.7	1 81
	November....	3.7	3.8	4.5	4.3	4.1	2 03
	December....	4.2	4.1	3.7	3.7	3.9	1 97
	January.....	3.6	3.6	3.5	3.3	3.5	1 75
	February....	3.4	3.4	3.5	3.4	3.4	1 67
	March.....	3.4	3.3	3.3	3.3	3.3	1 59
	April.....	3.3	3.3	3.3	3.2	3.3	1 40
	May.....	3.1	3.1	3.4	3.5	3.3	1 15
	June.....	3.4	3.3	3.4	3.3	3.4	1 12
	July.....	3.3	3.4	3.4	3.3	3.4	1 28
	August.....	3.4	3.4	3.6	3.5	3.5	1 47
	September....	3.5	3.8	3.9	3.9	3.8	1 65

MUTUAL McDERMOTT DAIRY COMPANY TESTS AT LOWVILLE,
LEWIS COUNTY, N. Y.

GEORGE LOSON, called before the Committee, testified:

"I am employed by the Mutual McDermott Dairy Company in the plant at Lowville. Just at the present time (October, 1916) our plant is shut down as we are not getting any milk. In September we were shipping about 50 cans and in June, 65 to 75. Our contract is as follows: We agree to take the milk at the following prices: April, \$1.30 per cwt.; May, \$1.05 per cwt.; June, 99 cents per cwt.; July, \$1.25 per cwt.; August, \$1.41 per cwt.; September, \$1.50 per cwt.

The above prices are for milk testing 3.3. In addition there will be paid three cents a pound for butter fat up to 5. For milk from dairies scoring under 68, there will be deducted 10 cents for 100 pounds from the above scale. None of the dairymen signed this, but that was our understanding. Then I tested the milk for butter fat. Some of the time I tested and some of the time the district superintendent did. The district superintendent's name is C. H. Mack, of Unadilla. We test every fifteen days, the 16th and the last of the month, from a composite sample we made up every morning when the milk was dumped after it was mixed. I simply reach into that can and get a cup full or measure full, a little thimble cup with a handle on it, probably as large round on the inside as your thumb and an inch deep, just a dipper. We dip down in there to get a sample full. I take the sample on the weighing can. The sample bottles were on the rack and I put the sample in. We take the samples out of the weigh can and then empty the weigh can and put in another man's milk and with the same dipper take another sample. That was the way we did all through the fourteen dairies. I have the test book here from May until September.

Fat Tests

Dairy number	Monthly average
1.....	3.8
2.....	3.8
3.....	.....
4.....	3.8
5.....	3.7
6.....	3.8
7.....	3.6
8.....	3.6
9.....	3.8

Mr. Ward.—What does this 4 mean after this number?

Mr. Loson.—That is 4 per cent.

Mr. Ward.—Does that mean that was allowed at 4?

Mr. Loson.—Yes, sir.

Mr. Ward.—He was allowed 4 on his milk on a basis of 4 per cent butter fat?

Mr. Loson.—Yes, sir.

Mr. Ward.—Who was that?

Mr. Loson.—Mr. Ebersoll.

Mr. Ward.—How large a dairy did he have?

Mr. Loson.—Well, I could not actually tell you how many cows, somewhere about sixty.

Mr. Ward.—Did you have any arrangement that his milk would be tested at 4?

Mr. Loson.—It would be tested regularly, but it was put down at a 4 price. That arrangement was made last Spring for six months. The question was where he would bring the milk of all his cows, and in order to induce him to bring to our company the company agreed to pay him on a 4 per cent basis, I so understood. He had stayed out for three months. In his case we did not depend upon the test of the milk, but put it down at 4, as agreed. The real test of his milk was left off. I have not got a record of it anywhere. I was told he was to be allowed 4 per cent, that is all I know about it, regardless of what his milk really showed. But he went on a strike too. Mr. Mack instructed me to do that,

the division superintendent. Ebersoll was the only patron that that applied to."

It will appear from the foregoing testimony, that buying milk on the butter fat basis readily lends itself to unfair discrimination between dairymen, and easily becomes an instrument of possible fraud in the station ill-equipped to make accurate and reliable tests, if operated by an unscrupulous manager. The operation of all the stations should be supervised by a Department of the State carefully and continuously.

There is hardly any weighing apparatus in the State so important to the dairymen as the scales in milk stations, yet it would appear that the Sealer of Weights and Measures in very few counties pays any attention whatsoever, so far as is disclosed to this Committee by the operators of the stations, to the station weighing apparatus. Only in a very small number of counties has it appeared that the Sealer of Weights and Measures has at any time visited a milk station. Where a collecting station asserts its intention to buy milk on butter fat test, such contract should be rigidly adhered to. Fraud and misrepresentation in the use of these tests or in making of samples should be punished. Accurate records of the tests should be kept at the station at all times and false entries as to the tests should be made a penal offense. Where the test is really carried on with proper equipment, accurate records kept and honest methods followed, it probably affords an advantageous measure of value.

THREE CENTS PER POINT

It is the custom where butter fat tests are used to add or deduct three cents per point of butter fat from the base price. The three cents per point is based upon the proposition that butter fat is worth thirty cents per pound, as an average price throughout the year. The evidence would tend to show that this was not a just measure of the value of the butter fat in the year 1916. Until such a time as it may be found desirable to permit the standardizing of milk sold, as is already done in certain countries of Europe, the problem of adjusting the desirable qualities of market milk on a butter fat basis is a difficult one.

It is an undoubted fact that the dairymen in some sections of the State having herds producing large butter fat content in the milk, desire and it will be necessary for them to be paid on a butter fat basis. It is undoubtedly true that such high butter fat milk has a certain market demand peculiar to it. Nevertheless, it sells and must sell under the present arrangement in competition with market milk which does not contain so large a butter fat content. The conclusion seems to be unavoidable that if market milk is to be purchased and paid for on the butter fat basis, it should likewise be standardized and sold to the consumer on a butter fat basis. In this way only is the consumer charged for butter fat for what he actually receives. By this method, the consumer who desires a 3 per cent milk pays for a 3 per cent milk; a consumer who desires and buys a 3.5 milk pays for the same, and so on to 4.5 per cent, or to plain skim milk. We understand that this method is pursued in foreign countries to a considerable extent. This permits a logical organization of the business both of buying and selling the product and an end which must ultimately be reached in order to put the varying costs where they really belong. Under the present method, the consumer who secures a milk testing 3.3 of butter fat is actually paying a part of the price of his more fortunate neighbor who is securing from his dealer, or perhaps the same dealer, milk testing 4 per cent butter fat. This is illogical and wrong. We believe if our laws permitted, the well-organized concerns engaged in distribution, would soon find a satisfactory solution of this problem. The legislation providing for a comprehensive food and market department should give sufficient power to such department to bring about proper business methods in dealing with this product. Inflexible and in-elastic regulatory statutes cannot afford relief in these matters.

HOW MILK PRICES WERE MADE

A great deal of time has been spent in discussing the question as to how milk prices were made, what factors were considered by the buyers in determining the price they were to pay for milk at the country stations at the various periods of the year when prices were put out from 1910 to 1915. The Committee has devoted some time into an examination of this question. At the outset it

seemed a difficult and intricate one, but on a full examination of the facts involved, it appears that during this period of years and up until the month of October, 1916, the price to be paid to the producer was largely determined and controlled by the price which the consumer was in the habit of paying without objection in the large cities. In other words, the consumer had become accustomed to pay a certain price for a bottle or quart of milk in the same way that he had become accustomed to the payment of street carfares or other items of customary daily expense. Society in those communities was and is instinctively organized to oppose any increase in these customary prices. An attempt to increase the customary price was followed by organized resistance, disturbance, opposition and contest. The public authorities resisted the attempt. Vigorous attacks, both through the public press and in the governing bodies, were customarily made against distributors or others who attempted in any way to charge a higher price for the product. It is claimed that a certain company in the city of Buffalo became insolvent through such attacks. Unpleasant situations resulted which in the end led the buyers of market milk to move along the line of least resistance. The dairyman during the period of years referred to was disorganized, without the support of the great public press or any governing body such as came to the rescue of the consumer. He was accustomed to a small wage return, accustomed to lack of organization, accustomed to accept the station price as put out and proceed to produce in the ordinary and usual way. He made during those years no resistance to the situation imposed upon him by the social organization of the city consumer which the distributor had come to fear to face. The result was that in determining what price should be paid to the dairyman, no heed at all was paid to the actual factors of the cost of production. Consumption was increasing, the fields of market milk were extended, and practically fully developed, but it was assumed to be, and actually was, much easier for the distributor to take his increased cost, if any, out of the dairyman than to charge them where they legitimately should be charged, to the consumer. So that out of the prices paid to the dairyman during the latter period, there was deducted not only the increased costs of the producer, but also the increased costs of the distributor.

In other words, it was assumed that the consumer was entitled to receive and should receive from the distributing companies during 1914 and 1915 milk at the customary price.

With this customary price fixed and determined beforehand, the distributor could easily determine the quantity of milk required for his trade and the money to be returned to him for it. From this sum he proceeded to deduct all his cost and expense, together with the trading profit to be derived from the business. What remained in his hands from the receipts was the price permitted to be paid to the dairyman for the raw milk, and this resulted in the contract schedules or proclamations at the station doors. This situation is practically conceded by the larger distributors who testified before the Committee.

HENRY HALLOCK, testified:

I am the vice-president of the Borden Condensed Milk Company, and the head of the Farms Products Division. That is the fluid milk end of the business. We have business in New York, New Jersey, Connecticut, Pennsylvania, Illinois and Wisconsin, and in all the western states where we have farm products. In fixing prices there is an economic law that rules. In other words, they have to buy on what they can sell for. If you have a large supply you have to look for the market and your selling price is determined by that, what you can sell it for. The capacity of the market to take it is about fixed. The wholesale business is a small part of our business. We are not looking for that, but we have not succeeded in establishing generally the habit in the hotels or restaurants or confectioners of making a contract for six month's supply at a time at a fixed price. In putting out our prices in the Spring of 1915, we based it on the selling price. Take the like period of the previous year, the same six months, you would know what you paid, what your milk cost you during those six months in case and what it averaged you in the selling price and you would determine what you could pay for it on that basis.

Mr. Ward.—In 1915, you did not consider at all the proposition that the consumer might be charged something more than he was the year prior, in 1914?

Mr. Hallock.—Not in the purchasing, no, sir. What we would pay was based on the previous selling price on the assumption that the consumer would get during the next six months milk at the same price that he had prior to that.

Mr. Ward.—Prices were going up to everybody including the dairyman and it was costing him more to make milk. Wasn't that obvious in April or March, 1915?

Mr. Hallock.—It might have been from the farmer's viewpoint. It is easy enough to put it up, but it is not so easy to get the price and hold your business. In other words, I would put milk pretty much on the basis of city carfare, or something like that, as that seems to be established in the public mind that they will pay a certain price for milk. That has been an old custom for years, whether it is good or not. Personally, I think those prices to be right should fluctuate periodically to the customer as well as to the producer.

R. E. VAN CISE, called before the Committee, testified:

I am president and manager of the Mutual McDermott Milk Company in the City of New York. I have been in the milk business fifteen years. I have managed country stations, done labor and a few other things. I was twenty when I started in the milk business and have worked my way from the country station into the city supply gradually. Our company distributes about 125 cans of milk per day.

Mr. Ward.—I take it that prior to October, 1916, for one economic reason or another, the actual costs and need of the producer were not considered fully in fixing the price which he was to receive for his product.

Mr. Van Cise.—I don't think they were, no.

Mr. Ward.—That is, as suggested by Mr. Hallock yesterday, in fixing the price it was assumed that it was impractical for one reason or another to charge any increased cost to the product on the consumer in the city; they would become habituated, as he says, along the line of the street carfare to pay a certain price.

Mr. Van Cise.—I think his conclusions were about right, along the line of my thought.

Mr. Ward.—And an attempt to change those unit prices met with bitter opposition regardless of the facts involved.

Mr. Van Cise.—That is true.

Mr. Ward.—And the result was that the distributor assumed that the sale price must remain fairly constant.

Mr. Van Cise.—Yes.

Mr. Ward.—So that in determining how much the producer should get that sale price was taken as constant, the cost of capital, labor and distribution was deducted from it, and what was left went to the dairyman?

Mr. Van Cise.—Something like that.

Mr. Ward.—That may be a rather crude way of stating it, but that is what it approximately resulted in, and the result was that violent measures were finally resorted to by the dairymen, such as pouring it on the ground.

Mr. Van Cise.—Yes.

Mr. Ward.—And those violations brought about a temporary readjustment.

Mr. Van Cise.—Yes — by that, I mean, of course, the question is not settled yet by any manner of means. The problem is to avoid such forcible methods in the future and to give these questions economic consideration."

CONDITIONS INTOLERABLE TO THE DAIRYMEN

During the year 1916, these conditions became no longer tolerable to the dairymen of the State. The demand for milk during the years 1915 and 1916 and for milk production of all kinds exceeded the supply. Makers of condensed and other milk products having contracts to fulfill were seeking in every corner of the State to increase their supply. The market milk men had contracts with the dairymen, collecting stations and facilities to transport their milk. The distributors were securing the milk for less than the cost of production, but the only party suffering through loss of profit was the dairyman. He received no appreciable benefit from the increased demand, no fair return for the increased costs of

production. A study of the situation reveals at once the law of supply and demand had ceased to operate and did not in fact control or to any considerable degree affect the market price. Of course, butter and cheese increased in price and in some small degree the increased prices of cheese took up some of the milk which might otherwise have gone into the market milk and condensed product. But manufacturers of butter and cheese in the State had been completely subordinated to the production of market milk and the prices already fixed to be paid for market milk controlled to a considerable degree butter and cheese milk prices. The following table shows how comparatively unimportant the butter and cheese manufacture had become in the State of New York. This table applies to the ten years from 1899 to 1909. It is probably safe to assume that a much greater comparative change had taken place during the years from 1909 to 1916.

Pounds of Butter Made on Farms and in Factories

	1899	1909	Change in 10 years
New York	115,408,222	69,358,918	Decrease 40%
Wisconsin	106,552,649	131,085,193	Increase 23%
Minnesota	82,363,315	123,551,515	Increase 50%

Butter production in New York decreased 40% in 10 years.

Cheese Made on Farms and in Factories

	1899	1909	
New York	130,010,584	105,584,947	Decrease 19%
Wisconsin	79,384,298	148,906,910	Increase 88%

Cheese production in New York decreased 19% in 10 years.

During the same 10 years, the amount of milk sold in New York State to be consumed as milk increased. Making allowance for the amounts used in making butter and cheese the amount of milk sold to be consumed as milk considerably more than doubled in the 10 years 1899-1909.

DAIRYMEN'S LEAGUE

But closely following upon the investigations of this Committee and attending the publicity given to the condition of dairy farmers throughout the State, a force which had been practically dormant

for several years assumed new activity and sprang into vigorous life.

During all the years from 1910 to 1916, when these forces were operating in the State to the detriment of the dairyman and the dairy industry, the State had taken no single step to remedy the condition, but public interest awoke upon publicity being given to the actual conditions confronting the dairymen, as revealed by the evidence taken by this Committee. This publicity brought to the dairyman support both from the consumer and distributor. It brought into the situation a disposition to remedy conditions which all who were acquainted with the facts admitted to be unjust. The dairymen of this and neighboring states had for nine years past been endeavoring to form an effective organization by which they might through a common agency cooperate with one another in selling their product as market milk at a fair price. Their attempts to bring about an effective organization had not met with success and the organization itself in the early summer of 1916 was without means to further its purposes or secure an effective organization that would cover the market milk territory. The further history and accompanying events will perhaps be better explained by the extracts from the evidence and records of the Committee.

ALBERT MANNING, being called as a witness, testified:

"I live at Otisville in Orange county, N. Y. A brief history of the origin and purposes of the Dairymen's League as far as I know it, is as follows:

It was first started in the Orange County Pomona Grange by the appointment of a committee to confer with the New York Milk Exchange, which, at that time was the principal organization in New York City which established the prices which the farmers received for their milk. It was brought to our attention that they might recognize the farmers in arriving at what would be a fair and satisfactory price. The committee conferred with them and they reported to their organization and replied later that we were not as a Grange an organization of dairymen and had no authority to sell the milk or say what the members would be satisfied with for their milk, and taking that suggestion we commenced forming an organization of dairymen alone. It was some ten years ago. We

did not form a permanent organization until 1907. This was prior to that. We formed this temporary organization and commenced securing memberships from farmers who were dairymen alone, and in 1907 we had secured an organization representing about 50,000 cows and then formed our permanent organization and were incorporated under the laws of the State of New Jersey. The purpose of the organization was to secure as members those who were shipping milk to New York City markets. We have in that organization dairymen in New Jersey, Pennsylvania, Vermont, Connecticut, Massachusetts, as well as New York State. The treasurer is Louis M. Hardin, Sussex, New Jersey. He is a farmer and in no other business. I am the general secretary and live at Otisville. The principal office of the corporation is at No. 93 Spring street, Newton, New Jersey.

It is a stock corporation. The authorized capital stock is \$100,000. Dairymen are subscribing for that all the time. We are selling stock all the time. I cannot offhand tell you how many shares of the stock have been sold. The subscription of stock is based upon the number of cows in their dairies. They get one-tenth of a share for every cow they subscribe for at 25 cents a cow. That is, ten cows would be one share. Eight cows would be eight-tenths shares. This share would be of the par value of \$2.50. That is the selling value of the stock. I have a sample of the stock here and can let you see it. That is the only capital stock it has. At this time, I think that less than one-half of it has been sold, somewhere in the neighborhood of 40,000 shares. The proceeds of these sales has been used to defray the expenses of organizing the local branches of the League. Local branches are established or aimed to be established where there are milk receiving stations. The subscriptions for stock are not high, as you see. It was designed simply to cover the cost of the missionary work that was necessary to explain the purposes of the organization to the farmers through the different sections of these states. This work was done by different men whom we were able to secure and hire for that purpose.

The officers and directors of the organization as they were from time to time assisted in that work and we had at different times parties outside, whom we were able to secure, that went in the

field and travelled around under our direction as we found applications to organize branches. One was Mr. Kilburn of Lowville, Lewis County; Mr. Potter in Oneida County, and several others. These men have been employed since 1910. The first meeting of the corporation was held at Newton, N. J., on the 23d day of July, 1910. The following incorporators were present or represented: Warren D. Haggerty, in person, one hundred shares; Levy H. Morris, in person, one hundred shares; Arthur E. Rutherford, by proxy by Albert Manning, one hundred shares; Charles H. Tuttle, by proxy by Albert Manning, one hundred shares; Milton A. Lane, by proxy by Albert Manning, one hundred shares. At that meeting the chairman reported that the certificate of incorporation of the company had been recorded in the office of the clerk of Sussex County, the 4th day of October, 1907. Before that, we had a temporary organization. These incorporators to incorporate had to go through certain forms and subscribe for these number of shares to comply with the law and then we sold that to individual members and had it transferred later so that each of the incorporators had only his shares for the number of cows he had in his dairy, although he subscribed and agreed to take \$250 worth. As their shares were sold, they were transferred to different members of the organization. They had to pledge that number of shares to the treasurer. I don't just recall now. We keep stock books and I think about 13,000 certificates have been issued from time to time running in amount from 25 cents up. The largest, I think, is one for three hundred cows. We have to make a yearly report in the State of New Jersey. At the last annual report we had approximately 190,000 cows. That would be about \$47,500. That was in January, 1916. That was all received in cash by our treasurer and has been disbursed. There is a very little balance in the treasury. At the end of the last fiscal year, when a report was made there was on hand \$3,168.85. That was the balance on hand December 1, 1915. The treasurer received a salary of \$100 a year and the secretary \$900 and the president and directors nothing. We pay the solicitors about \$16 a week and their expenses. I have a copy of the treasurer's report, the original one that he gave me. Both the treasurer and myself keep a detailed record of the receipts and disbursements. The treasurer has a full

account. The funds are kept by the treasurer in such depositories as the board of directors order, some in the Middletown National Bank and some in the Sussex County Bank, in the treasurer's name. In 1913, 1914 and 1915, we disbursed \$28,646.50. In the first few years neither the secretary nor treasurer received any salary. Then later \$600 and now \$1,000 cover the salary item.

The by-laws provided that should the funds of the treasurer be insufficient to meet their obligations, they may levy an assessment upon the members not to exceed 25 cents per cow for the number of cows in their dairy in any one year, but it is not so on the stock. We do not assess the stock, but the by-laws provide that we can assess them for the number of cows they have in the dairy, whether one cow or ten cows. A short time ago as we needed money to renew this work, we levied an assessment of 25 cents per cow. If it was all collected that would bring about \$45,000 additional. It was deemed necessary for the purposes of the association this year to provide itself with these funds in order to meet whatever obligations we might have, present or future, that may be thought necessary by the board of directors. There was a deficit in the receipts for a period of years. The disbursements were greater than the receipts. But there was no deficit that required this assessment. It was done to extend the organization and do such necessary work as the board of directors felt advisable at this time to promote the the dairy interests of the State. Our report shows as follows: December 1, 1912, balance on hand \$4,517.38; receipts during 1913, 1914 and 1915, were \$27,298.05; but of those receipts in 1915 there was only \$69.90. We have got the receipts from the very beginning so we can tell where every dollar came from and every dollar went to. All checks had to be signed by both the president and the treasurer. The treasurer is under bond and the checks have to be signed by two officers. The organizer goes into a district and selects a town where there is a receiving station, where milk is being delivered, and interviews the milk producers in that section and secures their signatures to the agreement agreeing to pay 25 cents a cow for the number of cows in their dairy, for which they will receive stock. This list, together with the subscription, is forwarded to the secretary and stock is issued, the record made and the money forwarded to the treasurer.

The League has no other source of income besides these stock subscriptions (September, 1916). There is no dividend guarantee on the stock and we do not aim to lead our stockholders to believe that there will be any dividends. The object of subscribing is simply to furnish funds for them to organize, pay the expenses of continuing the organization with the idea of getting a better price for the milk, promoting beneficial legislation or defeating hostile legislation — any thing they think will advance the dairy interests of the State. This is the first assessment we have ever attempted to levy. The subscriptions of stock met our necessary expenditures up until this time. Fred Mason, Frank Mosell, S. M. Potter, William M. Cox, G. M. Babcock, Clifford E. Huff, were all engaged in the work of organizing or collecting for the stock. The directors are paid their expenses and no per diem. Directors meetings are held at the call of the President. Some branches cost much more to organize than others. This book which I have here shows all the expenditures. You will find them all itemized. In 1913, we disbursed \$14,474.09 for these organizers' expenses and the travelling expenses of directors to the men who are mentioned there. Each of these men was employed in organizing branches of the league. We have had small expenditures which show there for advertising annual meetings and such things. This book is open to the examination of all directors. We keep the name of every man of whom we receive a cent from. There are twenty-four directors. Generally, nearly every one of them are present. The meetings are held at such places as the president designates. The most convenient place has been at Albany. 1913 was our big year. When the organizers could not get enough stockholders to pay their expenses, we stopped them; we didn't have the money to pay if the subscriptions were not large enough to keep them going. Always since our organization, we have attempted to follow legislation affecting the dairy interests very closely and we have been able to secure what we consider beneficial legislation from the Legislature of New York State. We were interested in the bill reducing the total required solids in milk from 12 to 11½%. That was fortunate for the milk producers. We have not yet had that reduced enough. The New York milk dealers were pleased to have it, but they didn't help us any in getting it through. Lately there has

been a great revival of interest in our work. No considerable fund of money has been paid or withdrawn by any officers except for the payment of organizers and traveller's expense.

Mr. Ward.— This book practically shows the payment of all these collections out for organization and traveling expenses, except for these salaries mentioned and postage.

Mr. Manning.— That is correct. Except for usual incidental expenses, envelopes, printing and advertising that would necessarily follow in such an association. They are all there. There has been no other disposition made of the moneys collected whatsoever. As the book shows, these payments were made weekly or semi-monthly."

Revival of 1916.

Mr. Manning, (continuing).—" During 1915, we had no active organization that year. The organizers were not able to get enough new names to pay their expenses and as soon as they had covered the territory to that extent, we stopped the work, but this summer there seems to be a demand from our members for new organizations, a call for men to organize new branches. When that came a meeting was held and the proposition of finances was taken up at a directors' meeting. Most of the organizers are practical farmers and stockholders in the association. I don't know whether they are all of them or not. It was aimed to have men that were farmers to act as our organizers, so far as we were able to secure them. We aimed to get the farmers to do that work for us. It wasn't easy to get organizers for the amounts that we could pay them. In 1915, because of lack of funds, we had no regular organizers out, but they are now out (September, 1916). We held a meeting when these demands came in this summer and discussed ways and means and we looked about for ways of getting capital enough to carry on the work. There was great interest and a demand for active work and we thought that our organizers had exhausted the field to a limited extent, the canvassing field of securing new members, and that was the general impression and our purpose was to go to the old dairymen. We were not anticipating so many new ones coming in, such an interest and a demand for active work. Then we thought that in order to secure the necessary funds, it

would require an assessment on the old members and that assessment of 25 cents per cow was levied. Then when they began to meet for the purpose of collecting those assessments, we found that there were many other dairymen interested and wanted to join. I don't think that this Committee has done us any harm. We found that in addition to this assessment there were many new members ready and eager to join and help. Of course, the dairymen have learned a great many things in the past few years. Our agricultural colleges and experiment stations and farm bureaus have been teaching the farmer what it costs to produce milk and to separate the cost of milk from the other farm operations. In years past, they did not know that. Practically few of them knew what it cost to produce milk, but this knowledge and the publicity you have given them in this work has opened their eyes and is, to my mind, largely responsible for this renewed interest in the dairy field and of their desire and conviction that they should receive more for their milk, must receive more or they will have to go out of business.

We notified every stockholder by a personal letter that we had made this assessment. They paid readily and new money began to pour in. The executive committee, Mr. Cooper, Mr. Thompson and Mr. Sherman were instructed by the board of directors to use their judgment in extending the organization. There are more calls now for organizing work than we can get men to go into the field and do. We have many volunteers today, hundreds of them serving without pay at all, but even then we cannot get enough men to do the work. We need 25 next week and we haven't got the men to place. Up to July, our collections were very small. Since then, we have been active and these new members have come in and assessments have come in and the collections are very large and prosperous. From the 1st of August on, real interest seemed to be awakened. Jacob S. Brill is the president of the League at the present time. Our assessment of 25 cents a cow is designed to just about pay the cost of getting the members. It is possible that we could have done better work if we had had a larger fee.

We do not desire or advocate a strike or the destroying of any product. We might better manufacture our milk and not destroy it. We have collected data as to what it costs to produce milk and

have made it public and you have helped us. But we feel we should be paid for milk a sum that will cover the cost of production with a reasonable, fair profit. That is as far as we have ever gone and that is all we ask the dealer to pay us. The dairymen feel it is their goods and they ought to have the right to say what it is worth. In the past we have been told what they would pay. Now we have simply in advance told them what we want. Whether they will pay it to us or not, I don't know. So far, the Dairymen's League is merely an effort towards collective bargaining. The Committee has examined these books so that if any question comes up you can say that there is no suspicious diversion of any money. There is nothing to conceal along that line.

Mr. Ward.—I assume that when you levied this assessment on the old members you did not expect this influx of new money nor expect to realize the sum of money that all of these cows paid.

Mr. Manning.—It far exceeded our expectations, this spontaneous interest that has been shown since August, 1916.

Conditions of the Dairymen

Mr. Manning, (continuing).—"There are a number of conditions that have changed in the last two years. The board of health restrictions have increased the cost of producing milk to the dairymen and they have also increased the cost of distributing the milk by the distributor. These increases and these rules are not of our making or seeking. The expenses we have been required to meet to put our equipment and barns in some instances to comply with these requirements have been greater than the buildings cost when they were originally built. The expenses in the distributing end of it, that is not our problem. All we are looking out for is the price that will cover our cost of production. We have met these increased expenses in the past largely through better and more scientific feeding, better grade of cattle, and the breeding of large-producing cattle, but the changing in the basis of purchasing milk from quantity and putting it upon a butter fat has checked our possibilities along that line and that has only served to make the agitation more pronounced. The milk is not sold to the consumer upon the same basis as the producer is required to sell it. If the con-

sumer were sold the milk at a price charged in proportion to its butter fat content, the same as the producer is required to sell it, I question if there would be such a very large demand for high butter fat milk. It is only fair to the consumer that if the milk is put upon a butter fat basis, it should be sold to them upon the same basis, not paying the farmer for a high butter fat milk and selling it to the consumer with no guarantee of its contents, except to comply with the State standard. We have found in our canvassing for the supply of milk that in the census of the cows in certain localities there are many less cows in 1916 than there were when we were making our former canvass in 1914.

Decrease in Number of Cows

One branch I have in mind that I know of personally just around one receiving station there are 400 cows less in that neighborhood than there were in 1914. You will find that situation quite common and it presents a serious problem to those who appreciate the vastness of the dairy interests of the State and its relation to the maintaining of the fertility of the soil of our State, and unless some relief comes to the dairymen there will be many more of them that will have to go out of the dairy business. These 400 cows that I spoke of are absolutely not on the farms. The farmers have gone out of the milk producing business entirely or have reduced their dairies to a very small number. It is absolutely necessary in order to assure an adequate supply of wholesome milk to the cities and to maintain the fertility of the soil of the State that the dairymen should get more money. Through our survey of the dairy sections and the census we get from our organizers and the formation of the new branches, it is shown that the trend is to reduce the herds or abandon milk production entirely.

The endeavor of the producer to get more money is a very important thing for the prosperity of the whole State. It is our desire and intention through the Dairymen's League to do some effective work to accomplish that in itself."

It is proper for the Committee to say in connection with this matter that an examination of the books of account of the Dairymen's League by the Committee and a checking up of the receipts and expenditures showed an absolutely correct account of all the

funds of the League. All the moneys received had been disbursed in small weekly payments to organizers for modest salary and traveling expenses. The history of the Dairymen's League following Mr. Manning's testimony before the Committee is best shown by the following documents:

THE
DAIRYMEN'S LEAGUE
LITTLE FALLS, NEW YORK
ALBERT MANNING, *Secretary*
Otisville, N. Y.

Directors

Jacob S. Brill, President, Poughquag,
N. Y.
F. H. Thompson, Vice-President, Hol-
land Patent, N. Y.
Louis M. Hardin, Treasurer, Sussex,
N. J.
Ira Sharp, Lowville, N. Y.
Frank Sherman, Copake, N. Y.
D. H. Sliter, Margaretville, N. Y.
Harry W. Culver, Amenia, N. Y.
Oscar Bailey, Brewster, N. Y.
Dr. C. D. Huxtable, Richfield Springs.
Grant Farrington, Pulaski, N. Y.
Albert E. Helmer, Evans Mills, N. Y.
H. J. Kershaw, Sherburne, N. Y.
R. D. Cooper, Little Falls, N. Y.
Charles M. Coe, Bouckville, N. Y.

Directors

Clifford E. Hough, Washington, Ct.
B. F. Livingston, Chemung, N. Y.
Alfred E. Sheard, Milanville, Pa.
John S. Petteys, Greenwich, N. Y.
John L. Hartnett, Truxton, N. Y.
D. H. Clements, Liberty, N. Y., R. 1.
Harry Bull, Campbell Hall, N. Y.
Charles C. Gordon, Lowville, N. Y.
J. D. Beardslee, New Berlin, N. Y.
Clarence F. Hunt, Manlius, N. Y.

Executive Committee

R. D. Cooper, Chairman
F. H. Thompson,
Frank Sherman,
President, ex-officio
Secretary

September 9, 1916.

To the Members of the Dairymen's League:

The Directors of the Dairymen's League, an organization of which you are a member, believe that now is the time for the League to take definite, united action to secure a fair price for the milk of its members and have, therefore, authorized the Executive Committee to sell the milk of all members of the League.

The Executive Committee has arranged to sell your milk through the agency of the New York State Department of Foods and Markets, and has agreed upon a minimum, uniform price approved by the Board of Directors, for a period of six months, from October 1, 1916, to March 31, 1917.

As you have consigned to the Dairymen's League, your authorized and exclusive agent, for sale, all of the milk produced upon the farms controlled by you, you are hereby cautioned not to make any other contracts for the control of your milk after October 1, 1916.

The following is a schedule of minimum prices which the League asks for its milk. Grade B milk testing 3 per cent butter-fat:

	First Dist.	Second Dist.
October	\$2 15	\$2 05
November	2 25	2 15
December	2 25	2 15
January	2 15	2 05
February	2 10	2 00
March	2 05	1 95

Three cents per hundred pounds of milk added for each one-tenth point increase in butter-fat. The prices asked for the other grades take the same relative price.

In the event that the Executive Committee, through the Department of Foods and Markets, is unable to dispose of your milk at this price, you will be advised of the situation and kept posted as to the progress being made. No milk is to be delivered until due notice is received from the Executive Committee.

Sign No Contracts

At the meeting of the Directors on June 1, 1916, a resolution was passed levying an assessment of twenty-five cents per cow upon the stockholders, for the number of cows subscribed. The assessment is made necessary to provide the League with funds to carry out its work.

From now until the first of October, your Directors urge upon you the necessity of holding meetings and doing everything you can to increase the membership and strengthen the organization in your neighborhood. By so doing you will strengthen the position of your officers and help them to better serve you.

Make all remittances to Albert Manning, Otisville, New York.

Very truly yours,

R. D. COOPER,

Chairman Executive Committee.

PURPOSES OF THE DAIRYMEN'S LEAGUE

The purposes of this company shall be to oppose and prevent monopoly in the production or sale of milk, and to encourage competition therein, and to protect its stockholders and the consumers of milk against monopoly or any unlawful combination of any kind or nature whereby the producers or consumers of milk are injuriously affected, to promote legislation and board of health ordinance beneficially affecting the interests of the stockholders who are producers of milk for the Metropolitan district, and other markets, to act as their agents in marketing their products and to carry on all such business as its articles of incorporation authorize.

Should the directors be unable at any time to negotiate, equitable conditions of sale of milk from the local branches of the League at a price proportionate with the cost of production of pure, unadulterated milk produced under conditions to properly safeguard the public health, each member shall be so notified and in such emergency it shall be optional with each local branch of the League whether its members manufacture their milk at home or at a place provided and operated by the local branch.

Should the conditions of any local branch be such that the milk cannot be sold profitably by the board of managers they may authorize the sale of such milk, making due allowance for such local conditions.

Any person or firm producing milk may become a stockholder of this company, and it is intended that none but milk producers shall become such stockholders.

Any milk producer desiring to become a stockholder shall pay twenty-five (25) cents per cow for which stock will be issued to him at the rate of two dollars and fifty cents (\$2.50) per share, that is one share for ten cows and for each additional cow one-tenth share. No stockholder of this company shall sell or transfer his stock to any person, firm or corporation without giving the Secretary of this company thirty days notice in writing of his intention to do so, and this company hereby reserves the right to purchase the stock of any stockholder so desiring to sell and dispose of his stock at the par value thereof.

Local branches of the Dairymen's League may be organized at any point where there is a condensery, creamery or shipping station and may meet at will for the purpose of assisting the directors and facilitating the business of the corporation, and may levy such local dues for local purposes as the branch may decide.

It shall be the duty of the Secretary of the local branch to report the proceedings of these meetings, furnish a list of members, and such other information as may be required by the Secretary of the League.

All subscriptions for stock shall be promptly forwarded to the Secretary of the League, together with full name and address, number of cows subscribed for and present buyer. Checks to be made payable to the Treasurer of the League.

The annual meeting of the stockholders, after the first year 1910, shall be held on the second Tuesday in December in in each year, at ten o'clock a. m. 93 Spring St., Newton, N. J., when they shall elect by a plurality vote, by ballot, the board of directors, twenty-two in number, to serve for one year and until their successors are elected or chosen and qualified, each stockholder being entitled to one vote, in person or by proxy, for each share of stock standing registered in his or her name on the twentieth day preceding the election, exclusive of the day of such election, and a fractional vote for fractional shares of stock.

The Secretary shall give notice of the annual or any special meeting of the stockholders by publishing a notice in a weekly newspaper published in each county where a local branch of the Dairymen's League is or may hereafter be established and in case there be no weekly newspaper published in such county, then to publish the same in a newspaper circulating in such county; or notice may be given in such other way as the Board of Directors may hereafter direct.

A representative either in person or by proxy of ten per cent of the stock issued and outstanding shall be requisite to constitute a quorum.

The Board of Directors shall annually choose a President, Vice-President, Secretary and Treasurer.

The Treasurer shall give bonds to the amount named by the Board.

Should the funds in treasury of the company be insufficient to meet their obligation, the Board of Directors may charge to each member of the company a fee not to exceed 25 cents per cow in any one year.

THIS AGREEMENT, made this.....day of.....1916, by and between THE DAIRYMEN'S LEAGUE, INCORPORATED, party of the first part, andparty of the second part.

WITNESSETH: That in consideration of the sum of ONE DOLLAR (\$1.00) paid by party of the first part to party of the second part, the receipt whereof is hereby acknowledged, and of the covenants and agreements herein contained, the said parties have agreed and do hereby agree as follows:

1. That the party of the second part hereby agrees to consign for a term of years, and hereby does consign to party of the first part for sale all the milk produced upon the farms controlled by party of the second part, except such milk as is required for home, farm or local consumption; for and during the term beginning October 1st, 1916, to March 31st, 1917, and thereafter for six month periods, unless 30 days' notice is given in writing by either party before the expiration of any contract period, and the party of the second part further agrees to deliver the said milk pure and unadulterated in condition for sale suitable in the New York or adjacent markets, to the shipping station, condensery, or such other manufacturing plants as is designated by party of the first part, or if party of the first part should be unable to dispose of the said milk during any portion of said period, said party of the second part shall be so notified and in such an emergency it shall be optional with party of the second part whether they manufacture their milk at home or at a place provided and operated by the local branch.

2. The party of the first part agrees to sell and dispose of the said milk to the best advantage and to remit the proceeds thereof to the party of the second part less the commission hereinafter mentioned.

3. IT IS FURTHER AGREED that the party of the first part shall receive a commission from the proceeds of the sale of one cent for each one hundred pounds of milk sold during the time of this contract and the said one cent for each one hundred pounds shall be deducted from the proceeds of sale.

4. IT IS MUTUALLY COVENANTED AND AGREED that in case either party fails to perform the covenants herein agreed to be performed by such party, the party so failing shall and will pay to the other the sum of Five Dollars (\$5.00) per cow for cows for which party of the second part has taken stock, which sum is hereby fixed and agreed upon as the liquidated damage for such failure, and that the same shall in no event be considered a penalty.

IN WITNESS WHEREOF the parties to these presents have hereunto set their hands and seals, the day and year first above written.

THE DAIRYMEN'S LEAGUE, INCORPORATED.

Signed, sealed and delivered in the
presence of

.....[L. S.]
(Signature of President of State League.)

.....
Witness of President.

.....
Witness for stockholder.

.....[L. S.]
(Signature of stockholder.)

Address.....

Name of branch.....

Present purchaser of milk

.....
Address.....

NAME	Post office	Number cows	Amount paid	No. shares subscribed for	Present buyer

A history of the contest during September and October, 1916, is illustrated in the following bulletins issued from time to time by the Dairymen's League and in evidence before the Committee, which are printed in part:

Post This Bulletin Where All Your Members Can Read It

OFFICIAL BULLETIN

of

THE DAIRYMEN'S LEAGUE

Wednesday

Sept. 20, 1916

No. 1

The following notice to Dairymen appeared upon the Bulletin Board at the Borden Plants: "For present and until further notice we will publish monthly prices, which we can offer for milk for the following month. October:

1st District \$1.90 for 100 pounds, 2nd Dist. \$1.80 for 100 lbs."

What does this new dodge mean? Borden's are trying to break our ranks. Once you accept their prices, they have you for six months. Don't fall for it.

We insist that everyone stand firm and absolutely refuse to sign any contracts. If the Borden's or any other Company want your milk, New York State Department of Foods and Markets will sell it to them at the League Price.

The Sheffield Farms schedule is a conundrum. *Take no chances. Sign none of their contracts.*

Why have not all the large companies put out their prices at the same time as usual. There is consternation in the ranks of the dealers.

Many co-operative plants have sold their milk at the following prices:

October \$2.23

December \$2.33

February \$2.18

November 2.33

January 2.23

February	\$2.18
March	2.13

Many small dealers are accepting the League Price. The Borden Condensed Milk Company say they will not deal with any organized body of farmers, or the Department of Foods and Markets, but will deal with the farmer individually. Why? Think it over.

Mr. Reader, if you are not a member of the Dairymen's League—*Join at once.*

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

R. D. COOPER, *Chairman*,
F. H. THOMPSON,
FRANK SHERMAN.

Post This Bulletin Where All Your Members Can Read It

OFFICIAL BULLETIN

of

THE DAIRYMEN'S LEAGUE

Thursday

Sept. 21, 1916

No. 2

Large dealers are contracting for milk at \$2.40 per hundred in territory outside to ship into New York City. They can pay our prices. Stand firm and make them come across.

Some large dealers tell the individual farmer they will pay the League price. Stand and make them buy from the Dairymen's League. Make them come clean. Don't be frightened at their threats, nor deceived by their vague promises. Don't sign. Don't deliver your milk October first or after without notice from the League.

You have the milk. They can't do business without it. Their plants and cans are no good without your milk.

EVERY MAN SHOULD STAND FOR THE PRICE

The Borden and Sheffield Farms contracts are cats in a bag, Don't buy them.

LEAGUE PRICE

	First Zone	Second Zone	
October	\$2.15	\$2.05	For 3 per cent milk
November	2.25	2.15	For 3 per cent milk
December	2.25	2.15	For 3 per cent milk
January	2.15	2.05	For 3 per cent milk
February	2.10	2.00	For 3 per cent milk
March	2.05	1.95	For 3 per cent milk

The price is right. Take nothing less.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

Post This Bulletin Where All Your Members Can Read It

OFFICIAL BULLETIN

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THE DAIRYMEN'S LEAGUE

Friday

Sept. 22 1916

No. 3

You can't catch seven o'clock after the whistle blows. The whistle will blow October 1st. Be Prepared.

We are going to fight it out on our prices if it takes all winter.

A stitch in time saves nine. Look for the weak places in your Branch.

Orange County reports but a few scattering farmers outside the League.

Some dealers in Orange County have told those outside the League that they will not take their milk unless they join the League.

Orange County has doubled the number of League cows since this campaign started.

Fifteen Borden plants in Orange County. All patrons standing solid as a rock.

Ulster County is well organized.

Unless the dealers meet our prices October 1st, the actual fighting is on. Get your machine guns on the firing line for business October first.

Orange County is planning a League parade.

St. Lawrence County is standing by the League.

The milk dealers are trying to tie up all the cans. You tie up all the milk.

Levy Dairy Company is trying to buy milk from the cooperative plants.

180 distributors in New York City are in position to deliver milk at one cent a quart less than is charged by the big dealers and are prepared to pay the farmers one cent increase for which the League is fighting.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Saturday

Sept. 23, 1916

No. 4

One of the Borden "Doctors" who has been at Earlville, Chenango County, has stated that he thought the Bordens would be forced to give in.

Secretaries of the Branches will receive a list of cheese factories and creameries in New York State, available for use if producers are required to hold back their milk October 1st. Be Prepared.

Hallock, Vice-President of Bordens, says they are receiving more than the normal number of promises. Promises won't fill their milk cans.

The number of cans available upon quick notice is now being ascertained.

Orange County has ordered 1,000 cans for its members.

The requests for new Branches to be formed far exceeds the supply of organizers.

Get every milk producer into the League.

All things come to them who wait. Most surely when we know we are in the right.

Sign no contracts.

Don't deliver your milk after October 1st.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Monday

Sept. 25, 1916

No. 5

Dogged determination is the principal factor in winning a fight.

Preparedness is the word.

See if you can rent or buy a cream separator. Look up a supply of butter tubs, crocks and churns.

This is most important. Every local Branch get busy.

Have your members get Bulletin No. 60, "Farm Butter Making." Address College of Agriculture, Ithaca, New York. Induce them to keep all calves and pigs to feed up the skim milk.

Make your winter supply of butter.

Do not force your cows by high feeding

Each Branch appoint a committee of the most influential men to be at each shipping plant to prevail upon those who are not withholding their milk, to stand firm for the price.

Stick and you can't lose.

Report to Executive Committee, Little Falls, N. Y.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Tuesday

Sept. 26, 1916

No. 6

Wicks Investigation Committee has examined books of the Dairymen's League. Books were shown in full and at length.

Chairman Wicks.—"I think this clears the atmosphere."

Judge Ward.—"We find no suspicious diversion of money collected."

Cattaraugus County has been added to the list of League counties.

Indications are that 100,000 cows will be added to the League's strength.

Get a line on cheese factories and creameries to take care of your milk October 1st.

Do it now.

D. H. Burrell & Co., Little Falls N. Y.; Creamery Package Company, 47 West 34th street, New York City; Wisner Dairy Supply Company, 217 Greenwich

street, New York City; D. H. Growing Company, Syracuse, N. Y., sell all kinds of dairy supplies.

The Department of Agriculture report their supply of Bulletins of Cheese Factories and Creameries exhausted.

Fifty new Branches of Dairymen's League reported.

Situation improving every day.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Wednesday

Sept. 27, 1916

No. 7

October first is next Sunday.

Get ready to skim your milk or make it into cheese.

Little Falls Dairy Company, co-operative plant, will receive 1,000 cans of milk next Sunday morning.

Wanted at once, organizers for Borden territory in Otsego County.

Cortland County reports Borden plants will not have a cup of milk October 1st.

Is everybody happy?

If not, work for the League and you will be.

Everybody on the jump. Get busy.

The Dairymen's League contract is right. Make the dealers sign it.

Stiffen up the backbone of a few shirkers.

The Trustees of Otsego County Farm Bureau have told their Manager he has no business in the milk fight.

Borden contributes to the Farm Bureau in Otsego County.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Thursday

Sept. 28, 1916

No. 8

Chicago farmers win.

Dealers meet their demands.

Clover Farms say it is not their intention to buy any milk through an agent but will deal direct with the farmer.

It is the League, more than our price, that worries them.

Organization will bring the price.

The producer's salvation is the League.

Pennsylvania reports fine progress.

Onondaga County is solid.

The Large Companies are now working all kinds of schemes to get milk.

Chicago won April 1, 1916, and has won October 1, 1916.

It is up to you what New York will do.

SIGN NO CONTRACTS.

Deliver no milk Oct. 1st or after, until notified by League.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Friday

Sept. 29, 1916

No. 9

FOUR DEALERS, representing EIGHT PLANTS, have signed the League contract.

Names could not be secured on the phone last night.

Borden pays the Chicago farmers' price for six months.

Thirty-four counties in New York State are solid.

October 1st will be a dry Sunday in most of the larger dealers' plants.

MAKE IT DRYER YET.

The farmers suffered a drought in August.

Someone else will experience one in October.

The Borden's won't have much to do, no milk and drivers on a strike.

Beware of October 1st.

No contract, No milk.

Picket every plant Sunday morning.

Report to 43-W, Little Falls, N. Y.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Saturday

Sept. 30, 1916

No 10

Local Branches. Do not make contracts. Dealers must apply for contracts to Executive Committee.

Dealers are accumulating surplus milk at extravagant prices rather than allow the farmer to put a price on his own property.

This surplus will last but a short time.

Stand firm for the price.

Deliver no milk until notified by the Executive Committee that the dealer has signed Dairymen's League Contract.

Jefferson County Dairymen's Association will stand by the League and its price. Have wired Ullman & Hauk that they will deliver no milk to their six plants in Jefferson County after September 30th unless they sign the Dairymen's League Contract.

Otsego County is organizing rapidly. Everyone who can, help.

The Bulletin wishes to retract its statement to the effect that the Directors of the Farm Bureau of Otsego County had told their Manager "he had

no business in the milk fight." Mr. Barlow, Farm Bureau Manager, assures us it is untrue and that the Farm Bureau is in sympathy with the League movement.

Standard Dairy Company offered their patrons in Cayuga County the League price.

Cayuga County is lined up solid and will deliver no milk unless dealer signs Dairymen's League Contract.

St. Lawrence County is well to the front.

Hang tight to the League. It's your weapon against the profitless prices of the past.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Monday

Oct. 2, 1916

No. 11

October 1st.—And not a single Branch reported faltering.

Dairymen's League is supplying about 12 per cent of New York City's milk. Large dealers are getting about three per cent of their usual amount.

Fifteen smaller dealers have signed Dairymen's League contracts.

McDermott is trying to buy output of the cheese factories in St. Lawrence County. But with no success.

St. Lawrence County Dairymen's Association have voted, to a man, to stand solid back of the League.

Bordens at Earlville, Madison County, sent their team out to collect milk. Team came back with nine cans carefully covered with canvas to protect them from frost. Upon investigation cans found to be empties.

Masked men held up milk wagons at North Winfield, Herkimer County, Sunday. Farmers give notice they will take no more chances. Say they can't afford to deliver milk unless company will protect them against loss from such hold-ups.

Phoenix Cheese Company, Cedarville, Herkimer County, couldn't run on two cans of milk, so decided to shut down.

Sheffield Farms are trying to scare the farmers by sending out letters signed by their attorney.

Don't Scare!

Cattaraugus County has come into the League with 800 members and 12,000 cows. More coming by the minute.

Schuyler and Wyoming counties are now on the League map.

Seven new branches in Allegany County. More to follow.

Secretary's records show the League strength increasing approximately 3,000 cows daily.

Keep plugging until your particular section is solid. Remember in unity there is strength.

The eyes of the entire country are upon you. Show that you have the true spirit of the American manhood.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Tuesday

Oct. 3, 1916

No. 12

There is only one ALMIGHTY.

It is not Bordens or the Sheffield Farms.

Don't Resort to Violence. It will Hurt Our Cause.

The Milk situation is becoming acute. The common people and officers are commencing to look into the matter.

The Executive Committee was in conference nearly all night.

Pay no attention to the threats or cajoleries of the big dealers.

For sixty years you have sold milk to Bordens at their price.

Has it been a fair price?

Now is the time to shake off their despotism and get a fair price for your product.

Some of the big dealers are trying to bait you by offering prices as high and even a little higher than the League is asking for October milk.

WHY?

They think a lot of fellows will fall for it, thereby breaking the organization of the League.

Don't Fall For It After the first month you'll be worse off than ever. They will then pay you what they please. As they have in the past.

Insist that they sign contracts for six months — recognizing nothing less — and they must make their contracts with the Executive Committee of the Dairymen's League.

They are doing the same thing we are asking for in other places.

Why can't they do it here?

They will, — if you stick together.

The League is growing stronger every day. Cattaraugus County has 1,000 members and 14,000 cows.

Jefferson County Dairymen's Association at Ellisburg, held indignation meeting because the Jefferson County Creamery Company shipped to Borden — and will join the League 200 strong.

Stick to the League. It is your duty and salvation.

Keep on the jump. Look for the weak spots in your branch and strengthen them.

WORK! WE WILL FIGHT EVERY INCH.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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OFFICIAL BULLETIN

of

THE DAIRYMEN'S LEAGUE

Wednesday

Oct. 4, 1916

No. 13

NEW YORK PAPERS PREDICT DAIRYMEN'S LEAGUE VICTORY

The Executive Committee of the League is still out of jail, in spite of the prediction of the Big Dealers, and held a highly satisfactory conference with Mayor Mitchel.

New York City's milk supply for Monday was sixty per cent; Tuesday fifty per cent; Wednesday thirty per cent.

The League has offered to fill orders for the "starving babies and invalids" and is in a position to supply the hospitals with their usual amount of milk.

Horton of the Sheffield Farms has spent thousands of dollars to give a few words to the farmers about milk.

If Mr. Horton would visit some of his stations today, he would learn some new things about milk, and about farmers, without cost.

Bordens declare the League is trying to usurp the function of the dealers.

The League will no longer allow the dealer to usurp the rights of the producer.

The organization is spreading like wild fire.

Hang tight — make them come across with the six months contract at our price.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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THE DAIRYMEN'S LEAGUE

Thursday

Oct. 5, 1916

No. 14

Bordens making overtures separate from the other large dealers by offering increase of fifteen cents a hundred.

Nothing Doing.

Executive Committee rejected proposal submitted by Delegation of Dealers to Mayor Mitchel.

Executive Committee told Mayor Mitchel that the League would absolutely, under no circumstances change the price it has set.

Court appointed Judge Dykman referee to take evidence for ascertaining cost of production of milk, commencing Monday morning.

Farm Bureau Managers be prepared to submit figures of your surveys. Mail at once data to Department of Foods and Markets, showing factories taken into consideration.

Wednesday, Mayor Mitchel said he was powerless to effect a settlement between producers and dealers.

Wednesday most critical day. Executive Committee delivered its ultimatum. Back it up.

Board of Health has called upon League to supply 6,000 quarts Pasteurized milk for 12,000 babies. We will furnish it.

Fort Plain Milk and Creamery Company are selling to Brown & Bailey.

Lacona selling to Empire State Dairy Company.

Massena supplying large quantity to Beakes Dairy Company.

Stop it!

Thursday and Friday is when the big test will come. Hold Fast.

Executive Committee confident big dealers are sweating blood. It will do them good.

Don't believe all you see in the papers. It is a bitter fight to the finish. Do your part.

Wire or telephone reports to Department of Foods and Markets.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

Bulletin No. 15

Dealers have met our October prices.

Deadlock on six months contract.

Don't be disturbed by rumors. Don't believe what Bordens or any other dealers tell you. They are trying all kinds of schemes to cause a break in our ranks. Receive instructions only from the Executive Committee.

Tie up every drop of milk.

Bordens have raised their price twice in one day.

Fight for your life and your children. Victory will depend on what you do. Believe only the newspapers which you know publish the truth.

Use every honorable means to keep milk out of Sheffield Farms plants.

Executive Committee held long conference with Attorney-General Woodbury Thursday. Executive Committee at Mayor's office absolutely refused to consider anything but six months agreement.

Victory will mean forty-five cents a hundred pounds more to you than last year.

Keep Executive Committee informed by wire. We must know what is going on in the country.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

Bulletin No. 16

Executive Committee were busy signing up contracts and sending telegrams all day yesterday. Last night they were in conference with some of the dealers all night.

The following are some of the companies who have signed up:

Newark Milk and Cream Company

National Dairy Company

New York Dairy and Produce Company

Rider & Company

Empire State Dairy Company

High Ground Dairy Company

Central Dairy Company

Zellner Brothers

Standard Dairy Company

Ullman & Hauk

Direct all energies on Bordens, Sheffield Farms, McDermott Mutual Company, Stevens Company and Brown & Bailey.

Hang tight to the League and make them come across for six months.

In 1882 you accepted their price for one month. And you lost your fight.

Don't compromise.

State Milk Investigation will probably commence Thursday.

The League stands ready to furnish milk for the children. If they suffer from the lack of it, it is the fault of the big dealers. Your children have gone without advantages for forty years because you failed to stand firmly together and demand fair prices for your milk.

Now is your chance. Don't throw it away by breaking ranks and letting them fool you into accepting their price for one month.

As soon as a dealer signs up, telegrams will be sent to all the stations from the Executive Committee in New York. Pay no attention to others. They are ruses to get your milk.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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OFFICIAL BULLETIN

of

THE DAIRYMEN'S LEAGUE

Monday

Oct. 9, 1916

No. 17

More dealers are signing up every day. Nearly a hundred companies are now on our lists.

Bordens, Sheffield Farms, McDermott Mutual, Stevens & Company are still of the opinion that they can break us.

Hallock, of the Bordens, has visions of importing a dairy and producing milk for New York City at a lower cost than we are asking.

We would suggest that Mr. Hallock peruse reports of the Wicks Investigation Committee and then see if his dreams have the same charms.

New York City is now receiving about 46 per cent of its normal supply of milk through the League.

Stand close to the League. Pay no attention to the reports circulated by various large dealers.

The time is no more when the big dealers will dictate our prices for us.

Every man see that the Borden, Sheffield Farms, Stevens or McDermott plants in your neighborhood get no milk.

Wring them dry!

You will be informed by Executive Committee in New York as soon as any of the companies sign up.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

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OFFICIAL BULLETIN

of

THE DAIRYMEN'S LEAGUE

Tuesday

Oct. 10, 1916

No. 18

The telegram sent out from New York signed by President Brill of the Dairymen's League was misunderstood. It referred to milk not already contracted for, and urged the farmers to hold that milk until released by the Executive Committee.

The Executive Committee has been signing contracts just as fast as they could take care of them.

All contracts are made for six months—notwithstanding the newspaper reports—and all contracts are made alike.

Keep hammering on Sheffield Farms, Bordens, McDermott Mutual, Brown & Bailey and Stevens.

We have made some inroad on the Sheffield Farms supply of milk. Cork it up entirely.

There is no truth in the report that there has been a "split" in the Executive Committee or Board of Directors of the League. They are fighting side by side for the cause.

The Attorney-General's investigation was postponed this morning because of a death in the family of Senator Lewis, who is deputy attorney-general.

A director of a bank in New Jersey refused to hold his milk. The farmers pulled \$60,000 out of the bank and refused to place it on deposit again until that director had resigned from the bank.

The following are a few of the companies who have signed contracts:

Ideal Dairy Company

International Milk Products Company

Henry Arnstein

Kinney Brothers

Theodore Pillens

Wohlman

Tiejen Brothers

Purity Milk Company

Normandie Milk Company

And many others.

Reports from all over the State indicate that the farmers are standing solid. Keep working. They are coming fast.

Bulletin No. 19

Milk from about 20 plants was sold Tuesday.

Wanted: Five hundred cans of milk in Southern New York to be shipped to Harrisburg.

Sheffield Farms Milk supply greatly decreased Tuesday. Bordens supply remains about the same.

Attorney-General's investigation into large companies is on for Wednesday. *It will be interesting.*

The Sheffield Farms Company has invoked the Court to break the Dairymen's League because we dared to ask more for our milk.

Don't let them have a drop of your milk. When your milk is released by the Executive Committee, do not hold it back. *Deliver* all the Borden, Sheffield Farms, Mutual McDermott, Stevens, and Brown and Bailey milk you can to the dealers who have signed League Contracts.

When in doubt or want information, get in touch with the Executive Committee.

We are gaining steadily every day.

They are your gains.

It is up to YOU to back up the demands of the Executive Committee.

Bulletin No. 20

DISREGARD ALL INSTRUCTIONS EXCEPT THOSE COMING FROM CHAIRMAN COOPER OF EXECUTIVE COMMITTEE.

Last night President Brill's office sent out telegrams releasing all milk,—*without the contracts being signed.*

The Executive Committee were unable to get President Brill's office last night.

Executive Committee immediately sent out telegrams to the effect that *Bordens and other large Companies had not signed contracts as reported by Brill.*

BEWARE of advices of such agreement. We fear treachery. President Brill has not been working with the rest of the Executive Committee, and has prolonged the settlement of the milk fight.

The Board of Directors has delegated to the Executive Committee full power to release milk.

Directors' meeting called for Thursday night at Murray Hill Hotel, New York City.

Now is the time to show your spirit.

Stick! Back up the Executive Committee every step.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

Bulletin No. 21

DELIVER NO MILK TO

Bordens, Sheffield Farms, Stevens, Mutual McDermott, Locust Farms, Alex. Campbell, Brown & Bailey, Beakes and several other large companies.

THEY HAVE NOT SIGNED CONTRACTS.

At a Director's meeting last night President Brill's resignation was unanimously demanded and he was prohibited from representing the League, incurring any expense or entering into any obligation in its behalf.

President's power was delegated to R. D. Cooper.

Brill's telegrams caused no break in the ranks.

Bordens are nearly out of breath chasing milk.

They are reported as offering 7½ cents per quart for milk.

The Executive Committee is still selling milk for the League.

Sheffield Farms' action against the League adjourned one week.

Show your confidence in your Executive Committee and Directors by standing back to back and fighting.

Disregard all telegrams except those from Executive Committee in New York.

For information phone or wire Executive Committee at 204 Franklin street during the day and the Murray Hill Hotel, New York City, at night.

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

Bulletin No. 22

The last battery has given away. The Dairymen's League has won a complete victory.

There are a few scattering companies who have not yet signed League contracts.

The Executive Committee has received many letters and telegrams which it has been unable to answer. Same will receive attention as early as possible.

The League on behalf of its 18,000 members, wishes, at this time, to thank all Farm Bureau Managers in New York and other states, who have rendered such valuable services in the fight against the so-called milk trust.

This work should never be forgotten by dairymen in the counties where these hustlers labored. The milk dealers may later attempt to smother appropriations for these Bureaus. Don't allow it.

In the flush of victory we must not rest. We must tighten and systematize our organization.

STAND ALWAYS READY. ETERNAL VIGILANCE IS THE PRICE WE PAY.

Be prepared for April 1st.

Join the League. Pay up the assessments.

WHAT HAS THE DAIRYMEN'S LEAGUE DONE FOR YOU?

EXECUTIVE COMMITTEE DAIRYMEN'S LEAGUE.

ALLEGED ILLEGALITY OF THE METHODS

In order that the situation may be fully understood, it should be borne in mind that article 22 of the Consolidated General Business Law of the State of New York provides:

"Section 340. Every contract, agreement, arrangement or combination whereby a monopoly in the manufacture, production or sale in this State of any article or commodity of common use is or may be created, established or maintained or whereby competition in this State in the supply or price of any such article or commodity is or may be restrained or prevented, or whereby for the purpose of creating, establishing or maintaining a monopoly within this State of the manufacture, production or sale of any such article, commodity, the free pursuit in this State of any lawful business, trade

or occupation, is or may be restricted or prevented is hereby declared to be against public policy, illegal and void.

Section 341. Penalty. Every person or corporation or any officer or agent thereof who shall make or attempt to make or enter into any such contract, agreement, arrangement or combination, or who within this State shall do any act pursuant thereto or in, toward or for the consummation thereof wherever the same may have been made is guilty of a misdemeanor," etc.

Section 342 provides that such acts shall be restrained and prevented.

The admitted purpose of the League was to control the sale of milk in this State. It is claimed that this law was violated by the methods disclosed in the foregoing bulletins and documents, yet there was no disinterested person in this State who thought that that law should be enforced in the situation then existing.

First.—It was conceded that the movement had become an economic necessity.

Second.—The officers in all their proceedings seemed to ask only reasonable and just relief, consequently a law that sought to prohibit the working out of economic forces fell into disuse and thereby it should come to be clearly understood for the reasons hereafter advanced that a substitute for a useless law must be provided. Such substitute must come in the form of State supervision and study of such movements. The subsequent operations of this movement and the history of its development from day to day we take from the report of the president of the Dairymen's League and testimony subsequently given by him to this Committee.

Report of Jacob S. Brill, President, Dairymen's League

"At a meeting at which I was elected I told the board I would accept the office only on the condition that I was to have a free hand in any negotiations growing out of the movement. The following letter sent to all directors on September 2d explains itself. There were no replies disapproving of my action.

POUGHKEEPSIE, N. Y., Sept. 2, 1916.

To the Directors of the Dairymen's League:

At your meeting of the Board of Directors at Albany on Monday, August 31st, I was waited on by a committee from your board advising me that I was unanimously called by your board to represent the Dairymen's League as its president and leader. On being brought before you I said, 'I appreciate thoroughly this very great responsibility imposed upon me by your honorable board to represent the members of the Dairymen's League. I wish it distinctly understood that I must have a perfectly free hand in the administration of the affairs of the League at this critical moment.'

I told you that I felt able and thoroughly capable to throw myself into this work, to handle this great situation and to help get a living price for the milk producing farmers who are members of the League, and that I wanted your full support and co-operation in this very great work. I further said that I also had an intimate acquaintance with some of the men in prominent walks of life, some of whom were my personal friends and who had an intimate knowledge of big operations and affairs of this character and that I knew that it would be their pleasure to support and counsel me at this time. I told you that I was going into this matter unreservedly and everything in my power that I could command would be brought together to support me in handling this great situation for the benefit of the farmers. As further reference to this matter I will refer you to the Sunday Courier, copy of which will be mailed to you as soon as it is off the press.

After making this statement to you about myself there was no opposing voice and I understood that I had your full cooperation and support. I wish to have you write me or wire me at once if I am correct in my understanding. I am rushing posters with my photo to all parts of the territory. My object in this is that they may see what your President looks like. It would have been my pleasure to have gone into the territory and met all personally but as the time is so short this was impossible. Therefore this is the best that I can do to get before our members. I am writing many letters to get in touch with the presidents and secretaries and others in various parts of the territory asking them to urge more people into the league, put up the posters and send in the money that is laying back in the local treasuries.

It is very essential that I should have time to get this matter in motion throughout the territory and I shall urge that the price be held back until I can accomplish this. I find that the way that Mr. Dillon is going at this matter and getting into the papers is very confusing to many of the members and is causing unrest which does not work out for the benefit of the League members. As a result of this I deemed it advisable to call our Executive Committee together, and wired Mr. Cooper, chairman of the Executive Committee, to do this. We will meet here today in Poughkeepsie and go over this matter very carefully. We must be prepared for any emergency. In view of this fact, I have this morning wired three great separator companies asking them if they were in shape to make immediate shipment of separators on quick notice. I am doing this in case there is any delay in the buyers accepting our price when it is made, in which event, these separators could be sent to various parts of the territory where there was any distress among the members in caring for their milk. This will help those members who are not in a

position to take care of themselves. From the way the reports are coming to me from various sections I don't believe that there will be any necessity for this arrangement. However, I want to be prepared for any emergency.

Further, when I have gotten advertising matter through the trade and gotten in touch with the situation I would like the Executive Board to place in my hands the price which we will make. I would like to flash this over the wires reaching all parts of the territory at the same time. Following this the Executive Committee would take their position at one of the prominent hotels in New York City and there be ready to sell their milk to the buyers who are already handling the same, providing they chose to give the League preference.

It may be necessary to have a meeting of the Board of Directors perhaps some time next week, so please hold yourself in readiness for a quick call. I would suggest that this meeting be called at Albany, the same place that we have had these meetings before. I have tried to give you a correct idea of what I have been doing since my election as president and would ask again that you give me your prompt reply approving or disapproving of my action as your president so far. Any suggestions that you have that would be of value to us, I would greatly appreciate.

Please answer this communication at once.

Very truly yours,

JACOB S. BRILL,
President Dairyman's League.

PRICE MAKING BY DAIRYMEN

It would be advisable to add to last year's winter Borden price of 45c per hundred instead of 47c. The price, therefore, which we will set for Grade B milk in the First District is as follows:

October	\$2 15
November	2 25
December	2 25
January	2 15
February	2 10
March	2 05

Three cents per hundred pounds added for each one-tenth point increase in butter-fat.

These making an average of \$2.15 5-6 on milk for 3 per cent butter-fat which would make Grade B milk in the Second District 10 cents less.

Agreement No. 1

AGREEMENT MADE THIS 7th day of October, 1916, between the Dairyman's League, a corporation organized under the Laws of the State of New Jersey as agent, party of the first part, and the undersigned milk distributors located in New York City, parties of the second part, witnesseth:

The parties hereto in consideration of the premises herein and the sum of One Dollar by each to the other in hand paid, the receipt whereof is hereby acknowledged, do hereby mutually promise and agree as follows:

1. The party of the first part agrees to sell and deliver at various shipping stations and creameries of the parties of the second part, and the parties of the second part agree to take and pay for as hereinafter provided, each day

during the period covered by this contract, all of the milk produced by the members of the party of the first part from whom the party of the second part is now or has been receiving milk if not previously sold, and such additional quantity of milk required by the second parties, shall if possible, be obtained from the party of the first part. It is understood that all milk sold under the agreement shall be of good quality, and must pass the inspection and approval of the authorities of the State of New York and municipality of New York City.

2. The parties of the second part agree to pay to the party of the first part for all milk received by it at its said stations from the party of the first part the following schedule of minimum prices for Grade B milk testing 3 per cent butter-fat:

	First Dist.	Second Dist.
October	\$2 15	\$2 05
November	2 25	2 15
December	2 25	2 15
January	2 25	2 05
February	2 10	2 00
March	2 05	1 95

per hundred pounds.

Three cents per hundred pounds of milk added for each one-tenth increase in butter-fat.

Grade C milk 10c less per hundred pounds as heretofore.

3. The party of the second part hereby agrees to pay on or before the 10th day of each month for all milk received by it from the 16th day up to and including the last day inclusive of the previous month, and also agrees to pay on or before the 25th day of the month for all milk received by it between the 1st and 15th day inclusive of the current month, or as has been the custom of each of the distributors herein. The parties of the second part further agree out of the purchase price aforesaid to pay the sum of one cent per hundred pounds to the treasurer of the Dairymen's League at his office at Sussex, New Jersey, or his successor where the said successor may have his office, and the balance of the purchase price to the producers of the said milk.

4. It is further understood that in case the parties of the second part have not filed with the Commissioner of Agriculture or with other proper authority the bond required by law for a milk gathering station, then it is agreed that each of the parties of the second part is to furnish the party of the first part with a surety company bond, satisfactory in form to the party of the first part in the sum of not less _____ dollars conditioned upon the prompt payment of all moneys due or to become due under this agreement and for the whole performance of this agreement according to its terms.

5. It is further understood and agreed that this contract is to begin and take effect on the 7th day of October, 1916, and to continue for a period of six months from that date.

6. THE PRICES SET FORTH IN PARAGRAPH TWO HEREOF FOR THE MONTHS OF JANUARY, FEBRUARY AND MARCH, 1917, SHALL BE SUBJECT TO REVISION AND

MODIFICATION BY AN ARBITRATION BOARD to be appointed as hereinafter provided upon condition that said board shall decide that said prices shall exceed the actual cost of production of said milk during said months plus a reasonable profit thereon. Said board shall consist of five members who shall be appointed as follows: Two members by each of the parties hereto and the fifth member by the said four members thus appointed.

IN WITNESS WHEREOF the Dairymen's League has hereunto signed its official signature by R. D. Cooper of its Executive Committee and the party of the second part has hereunto set his hand and seal.

DAIRYMEN'S LEAGUE,

By R. D. COOPER.

In the presence of

F. H. THOMPSON.

The Empire State Dairy Co., C. Neidner, Vice-Pres.

Wm. Burgers, for Standard Dairy Company.

Central Dairy Co., by Charles Vonhof, Jr., Sec'y.

New York Dairy Produce Co., Wm. J. Blair, Pres.

National Dairy Co., by Chris. Oher.

James C. Ridner & Co., George W. Rider, Sec'y.

Zellner Bros., Inc., by Jacob Zellner.

Ullman & Hauk Dairy Co., by C. Hauk.

Mr. Brill's Statement

The following is the agreement entered into by all of the big companies. In it there are no misleading phrases, but it is just what it pretends to be and it covers the case in a reasonably thorough manner. It is not a contract and is not signed, but is a "Gentleman's agreement." The fifth clause was put in by the Borden Company and crossed out and was in no sense or way whatsoever binding, but served as a warning as to what we would be up against in the spring. It was waived by both parties. The second clause governing the Committee was eminently fair and just to all parties concerned as well as the public. What I have always contended that we demanded was A SQUARE DEAL and a Committee appointed by those powers would have been impartial and just, and its findings would carry weight and be respected.

Agreement No. 2 Made October 11, 1916

(Not in force)

Mr. Brill, as president of the Dairymen's League, proposed the following settlement of the present milk controversy, and will release all milk of Borden's former patrons upon the public announcement of the Borden Company, and the sending of notices to its patrons of the following program:

1. Announcement of price for November and December milk at 45c per cwt. increase over last year's prices.

2. That the prices to be paid by the Borden Company for January, February and March, 1916, will be left to arbitration by a committee of representative men, none of whom shall be holders of public office, to be appointed in the following manner:

One member by the Governor.

One member by the Mayor.

One member by the Commissioner of Health.

One member by the Chamber of Commerce of Rochester.

One member by the Merchants' Association.

Two members by the Dealers.

Two members by the Dairymen's League.

3. Prices for said months, as determined by said committee, shall not exceed 45c per cwt. over last year's prices for the corresponding period.

4. Surplus production during said period, in excess of Borden's requirements for its Farm Products Division, to be paid for on the following basis: If in any month or months the Borden Company shall fail to sell in its Farm Products Division all milk received by that Division, such surplus of milk not so disposed of, shall be paid for at the market price for cheese or butter of 92 score, as published in the Producers' Price Current for the month, with a charge of 1c per pound for manufacture, with the understanding that the Borden Company has the privilege, if it so desires, of shipping this milk of its plants for the manufacture into condensed or evaporated milk, at prices as fixed in paragraph No. 2, less an allowance to be made to it of the freight involved in the transfer from one point to the other. (Note.—The following clause is waived and not valid.)

5. Milk to be purchased subsequent to March, 1916, on a monthly basis, the Borden Company announcing its price for such subsequent months not later than the 15th day of the preceding month.

6. The Borden Company to be at all times free and unhindered in dealing directly with its own patron farmers.

Agreement No. 3 Made on October 14

(The only one in force at the present time with the big companies)

Dealers are to announce to their Receiving Stations that for the months of October to March 31st, they will pay 45c advance over Borden's price for the corresponding months of 1915 and 1916, such prices to be firm for three months (October, November, and December) and as to January, February, and March, 1917, are to be subjected to revision and modification by a committee which is to be appointed: two by the Dealers, two by the Producers, and they to appoint a fifth, who are to consider the cost of production, distribution and market conditions and arrive at a price fair and equitable to both parties. This committee to be appointed and organized within thirty days from this date, October 14, 1916.

JACOB S. BRILL, called as a witness on December 5, 1916,
testified:

"I reside at Poughquag, N. Y. I own the Poughquag Farms. I am interested in breeding. Previously I was in the wholesale grocery business in Newburgh. I am in the milk business. We separate the milk and feed the skim milk to the young stock. I am

a member of the Dairymen's League. I was elected President in August at an Albany meeting of the directors. I was not an office holder until then. There were about nineteen directors present. Mr. Hartshorn of Hamilton had been elected president a short time before, but had failed to qualify. Mr. Culver, our Dutchess County Director, and Mr. Frank Sherman requested me to come to Albany and suggested I might be chosen president. They held their meeting in a building in the Agriculture Department and Mr. Culver came over and asked me to come to the meeting, that my name had been suggested and they were unanimously for me. I accepted the office. The movement was intended to secure a better price for the farmers. Methods and ways were not discussed at that meeting to any great extent, except that we were to sell the milk. It was said that if we did not sell the milk after our experiences of two years before the League would be a failure. I didn't think they could sell the milk without holding the milk for some time; I didn't think it would be possible to make the sale at our price without holding the milk back. I knew the general method of organization provided that it should be held back and the title to it held by the League until the League disposed of it, as I read their papers and their contract. That was the plan of the dairymen when they joined, transfer the title of their milk and right to sell it to the corporation so the corporation would be in the position to deal for all the members' milk as owner.

At Albany, we discussed plans for enlarging the field of operation, getting new members and sending out solicitors. Those that were not in the League should be urged to join.

There was no strong arm squad arranged for in any locality by the League to see that those who could not be persuaded amicably could by other means hold back their milk. As president of the organization, I sent letters to all the local leagues that they could persuade new members and talk to them, but under no circumstances to use any violence, force or threats. If anything like that occurred, it was contrary to the desires of the League in its instructions. I telephoned to the different districts where I understood that any such thing was under way that that was not the proper thing to do and it would work against their interest. The matter of the price we should ask was under discussion in the Executive

Committee. The way the prices were arrived at was this. At the local meetings in different localities, the farmers were asked to suggest what they thought in regard to their cost of production, etc., and what they thought would be a living price for them and what would be as low a price as they could afford to sell their milk at, the minimum price. This information was taken up at the general meeting of the League. We had the reports from the directors of the different boards and at this meeting at which I was selected, those directors came up with the prices and there was some discussion about them. The prices were fixed at the last meeting that we held in Albany, previous to the meeting we held in New York sometime in September. It was figured out on the basis \$2.15 and 56 cents for 100 pounds; that is, on 3 per cent State standard basis, and then there was a three point rise for each .1 of butter fat, that was to be the average price for the six winter months. That was the only arrangement of price that came before the board at the Albany meeting.

"When it came to October 1st, the milk was not sold; the companies had not agreed and there was only one alternative and that was to hold the milk. We got out advertising matter and flooded the country with literature and letters. I got in touch with the local leagues. Some were sent from Little Falls. Some I sent out. The members acted splendidly. They shut right down. We came to New York on Tuesday, the 1st of October, to sell this milk. It was discussed somewhat that we could shelter ourselves from legal attacks by acting under the name of a State officer as much as we could. The milk had been held up several days and the mayor of the city of New York commenced to get interested in the deadlock. We went to the mayor's office and he asked what the plan was; he wanted to know what the farmers wanted. We told him that we wanted a living price for our milk which had been held up. He said it was creating a great deal of disturbance in the city. "I would like to relieve distress here and also help you people to bring about a settlement." He undertook to get in touch with the dealers. The mayor said, however, that he would not have anything to do with it until Swann, the district attorney, stepped in. He had some fear of the Donnelly Act. Swann said he would stand between the

mayor and us in that instance and then the mayor felt free to talk with us. The fact of the business is that in our conference with the mayor he said there was great opposition found among the dealers. They did not want to deal through Dillon and the mayor asked Dillon if he would step aside in order to bring about a settlement, relieve the want, and help the farmers. Dillon promised the mayor that he would, but he never kept his promise and kept making us all the trouble he could. The next day Dr. Brown came over and said, the mayor wished to see Mr. Brill, Mr. Manning, Mr. Cooper and Mr. Thompson. Dillon said to him, "Is my name on the card?" He said, "No your name isn't there." Dillon said, "Oh, he probably forgot that and he wants to see me anyway and I will go along." Dillon went over and we met Dr. Emerson outside. The doctor said, "Mr. Dillon you are not wanted; you stepped out yesterday," and Dillon went into one of those pestiferous spells of his and jumped around quite a lot and said that there would not be anything done without he staying in. The doctor said, "I cannot take up that; that was my understanding," and then we went in. When we came in, the Mayor said, "Mr. Dillon, you said yesterday that you would step out so that we could get this thing settled." Dillon said he had, but came back in. The Mayor said, "I am sorry; under the circumstances I cannot do anything for you." He turned to me and said, "Mr. Brill, I am sorry. I thought possibly I could be of assistance to you to bring this matter to a settlement."

"The milk companies were ready to settle on the price, but they did not want to have any dealings with Dillon, neither did the Mayor, neither did I. He was a nuisance to everybody connected with the matter and has been ever since. The dairymen could and would have got better terms with Dillon out than with him in. What Dillon wanted was to advertise himself and say to the dairymen, see what I did. By that time the Bordens had offered to pay the League price for the month of October and Mr. Woodbury, the Attorney-General, thought we had gained a price victory on that month and that we ought to accept that price. I told Mr. Woodbury that I did not believe it would be fair to accept the price for one month; we would have to go further than that; that we wanted recognition of the League. Then I met Mr.

Burkitt, editor of the American Agriculturist, and he said that the dealers were ready to accept the price, but they did not wish to do business through Dillon, and wanted to make an appointment to see the president. He mentioned the names of the larger dealers. I told them to come up to the Hotel Manhattan where I had rooms for that purpose, and they all came there except the Borden people finally, the little independents and the big fellows, that is the way we call them. I saw them and they told me they were ready and willing to buy the milk, but they did not want anything to do with Dillon. Mr. Van Bummel was one of the spokesmen. It was a free discussion. I said, "I will call the Executive Committee to meet you." They said, all right. I got some of the members of the Executive Committee and told them the companies were there ready to accept our terms. Paul E. Brady was there in the hotel. He has 150 cows and is a member of the National Holstein-Friesian Association, the same as myself. He is one of the directors and a neighbor of mine. He was assisting me. He is a good friend of mine and I solicited his advice and help. They insisted that they would not make a contract at the Hotel Manhattan. They finally came up. Dillon came with them. Most of them walked out when Dillon came in and that evening there they agreed on the Dairy-men's League contract, and I told them I would send telegrams releasing the milk that night, for the people that had signed the contract. Of course, the big fellows had not signed and that made trouble. They were all ready and willing to sign the contract that night if Dillon had not come in.

"The men dealing with Sheffield Farms and Bordens were in a trap. We were getting pretty near the finish and these fellows could not hold out much longer. I met Mr. Brady and told him the trouble we were in. He said, those fellows won't sign any contracts, those big fellows under any circumstances, but the arrangement can be made with those people that they will recognize the League and will pay substantially the same price as the other people do and he said, I would try to bring about an agreement, so I had a memorandum drawn and submitted to the Borden people. That is the one that is marked, Agreement No. 2, October 11, 1916, (Page 279-uu) of this report. That provided for the payment of League prices for six months with a

committee to adjust three months of it. It was a memorandum but it was not to be signed by either one of us because they positively would not sign. Their idea was that it was dangerous under the Donnelly Act. They said, "Understand, we recognize this League and pay those prices under this agreement and deal through the president of the League." They said, "We will send out notices to that effect to the stations." They said, Mr. Brill, there is your proposition. These prices were the same and the whole thing was substantially the same as the contract the independents had signed, except that there was no signatures. So I sent out telegrams to release the milk. Immediately from Dillon's office unsigned telegrams went to the trade accusing the president of treachery. That is, those I saw had no signature on them. They were sent to presidents of the local leagues and then the bulletin went out. Then we held up the milk for a little longer, probably cost the farmers \$750,000 and finally accepted the same thing. The big fellows have not signed and never would sign. That was the whole result of Dillon's operation in the matter. He next attacked me in his paper and he made statements in that paper entirely unfounded and untrue, as he usually does, but I did not pay attention to that as I knew we had won something for the farmers. All that Dillon actually did was to put confusion in the field, have them hold back milk at a cost of about \$700,000, and abuse and reproach everybody in sight and libel them in his paper. The Big Four never signed the paper and never went to his office, and finally the milk was released on practically the same memorandum that they had offered me a week earlier."

MODIFICATION AND REVISION OF THE DAIRYMEN'S LEAGUE CONTRACT WITH THE DISTRIBUTORS MADE IN DECEMBER 1916.

Agreement No. 1, heretofore set out in this report, made the 7th day of October, 1916, signed by the Dairymen's League of the one part and the Empire State Dairy Company, and other distributors, on the other part, provided, among other things, as follows:

"Sixth: The prices set forth in paragraph two hereof for the months of January, February and March, 1917, shall be subject to revision and modification by an arbitration board to be appointed as hereinafter provided, upon condition that

said board shall decide that said prices shall exceed the actual cost of production of said milk for said months plus a reasonable profit thereof. Said board shall consist of five members who shall be appointed as follows: Two members by each of the parties hereto and the fifth member by the said four members thus appointed."

Agreement No. 3, not signed, but being the so called "Gentlemen's agreement," understood to be followed by certain milk companies, provided:

"Dealers are to announce to their receiving stations that for the months of October to March 31st, they are to pay forty-five cents advance over Borden's prices for the corresponding months of 1915 and 1916, such prices to be firm for three months. (October, November and December.) And as to January, February and March, 1917, are to be subject to *revision and modification* by a committee which is to be appointed; two by the dealers, two by the producers, and they to appoint a fifth, who are to consider the cost of production, distribution and market conditions and arrive at a price fair and equitable to both parties."

It will be observed that the signed contract expressly provided that the prices were to be subject to "revision and modification" upon condition that said board shall decide that said prices shall exceed the actual cost of production of said milk.

It is apparent that the same idea is carried into the so called "Gentlemen's Agreement," not signed, but agreed by parole to be adopted by companies not signing.

Pursuant to this agreement, the milk distributors selected Messrs. Caldwell and Van Bamel to represent them on said arbitration board, and the Dairymen's League selected Messrs. Cooper and Thompson to represent the League. This board of four thereupon designated Hon. Charles W. Wicks, of Oneida County, as the fifth member.

When this board met at the Murray Hill hotel, in the City of New York, on the last week of December, 1916, the representatives of the distributors contended that the contract plainly was designed only to provide for a *modification or decrease* in the price to be

paid for milk for the months of January, February and March 1917. They pointed to language "The prices set forth for the months of January, February and March, 1917, shall be subject to revision and modification upon condition that said board shall decide that said prices shall exceed the actual cost of production of said milk during said months, plus a reasonable profit thereof."

This they asserted gave the board no authority to increase prices under the terms of the Dairymen's League contract. They asserted that the only question before the board was whether or not the prices set out in the October contract then exceeded the actual cost, etc. If the board did find they were excessive the board should modify. If they did not find them to be excessive they must stand.

It would seem that such is the usual and ordinary construction of the wording and terms of Agreement No. 1 made between the League and the distributors on the 7th day of October, 1916.

By December, however, it was evident that cost of production had not decreased in any way, but had in fact increased. The representatives of the League took the position in the board that an increase of ten cents per hundred pounds should be granted by the distributors for the months of January, February and March, 1917, over the prices provided in the October agreement.

It is evident that the language of the agreement of October 7th presented a somewhat troublesome question. Obviously it was very important that the Dairymen's League should not be put in the position of treating the contract of October 7th as a mere "Scrap of paper." If the fair construction of the contract was as contended by the representatives of the distributors, it was very important that the Dairymen's League should not be put in the position of disavowing within three months the contract of October 7th which they had labored so long to bring about. It was important to satisfy the purchasers of milk that the League's officers and directors were a responsible body and that having made a contract in plain terms it meant something and would be adhered to and fulfilled by them, otherwise there could be no certainty of successful future dealings.

At the meeting of the board, however, controversy was happily avoided. After a fair discussion of the situation a determination of the question was reached by Messrs. Van Bume!,

Caldwell, Cooper and Thompson, and the four voted unanimously to *increase* the prices for December, January and February, 1917, by five cents per hundred weight over the prices provided in the October contract. This conclusion was reached by the four gentlemen without the necessity of a deciding vote on the part of the fifth member of the board. This result avoided conflicts and recriminations which might have arisen had the distributors been left in a position where they might have claimed that the League representatives and the arbitrators had disregarded the solemn written contract of October 7th. This solution of the question was satisfactory both to the officers of the League and the milk distributors.

CONCLUSIONS

The foregoing we believe to be a fair statement of the movement that resulted in restoring the operations of the law of supply and demand, to some extent on the price of market milk to the producer in this territory in September and October, 1916. Perhaps, under the Donnelly Act as interpreted by the courts of this State, the Dairymen's League itself and its methods of operation were contrary to law. If so it was at once the legal duty of the Attorney-General to apply for an injunction upon the affidavits and exhibits which could easily have been secured from distributors. Upon that showing as claimed, if the law had been strictly construed and followed, it would have been the duty of any judge of the Supreme Court to have issued an order enjoining Brill, the Executive Committee and everybody connected with the movement from further proceeding therein. But there would have been no practical possibility to have secured an effective enforcement of such law.

The demands of these dairymen were based upon necessity. The general public and the buyers and everyone familiar with the facts by that time conceded the justice of the demand. Above all, their demands were reasonable. Nevertheless, they were perhaps made misdemeanants and law-breakers by legislation devised in defiance of natural laws, impossible of enforcement and barren of practical results, except as it might be used to embarrass and hamper a just and necessary economic development.

SITUATION CHARGED WITH DANGER

Nevertheless, the situation was charged with great danger both to the dairy industry and the people of this State. For nearly ten days in New York City two men had with them credentials empowering them to sell and dispose of say 80 per cent of the market milk produced in the State of New York during the winter of 1916-17. The buyers delayed action. They as individuals feared the law, which the dairymen conscious of numbers and strength ignored. The increased price proposed by the dairymen was nearly four times the average profits of the previous year. To pay this increased price meant necessarily a considerable advance to the consumer, a step which they had learned to fear to take. Each day meant the loss of thousands of dollars to dairymen, and considerable suffering to the public.

The situation was one not to be desired and it is the plain duty of the State to avoid any future repetition of it if possible. Such situations are charged with danger from many sides.

Assume some individual had bought it and re-sold it at a handsome profit. It only required courage and capital, both of which are abundant. In that event it is doubtful if we have any law which could have reached that individual and prevented such action on his part. But beyond this, it might have been possible for the League movement to have resulted in failure and the dairymen as before left at the mercy of the organized consumer and the prudent business man engaged in distributing milk, in which case the dairy industry itself was threatened. These suggestions are made with some diffidence, not as being ultimate and final and positive conclusions that may be drawn from the facts presented, but as an attempt to indicate in some way the grave possibilities contained in the situation and to justify the suggestions for effective remedies which this situation seems to demand.

FAILURES OF THE STATE

The Committee believe that up to this time the State has entirely neglected by any competent officer or body to supervise, control or aid in a situation like that shown to exist. First, the State as a whole was practically without knowledge of the situation prior to July, 1916.

Second, the State had failed to have any competent body engaged in the study of this industry and able to give to the consumer or distributor satisfactory assurances as to the cost of production and distribution.

Third, the State had failed to provide any adequate machinery to direct a movement such as was here suddenly precipitated upon it, or to give this great body of organized agriculturists any suggestion, advice or assistance in their movement — that is demonstrated by the loss of the product both to producer and consumer and the violent remedy of a "strike."

It is true that they had to some degree acted under the name of a State official, but their motive in doing so confessedly was entirely to shelter themselves from prosecution, not because they expected to or did in fact receive any actual assistance through any department.

Fourth, the State made it dangerous for the distributors to meet the organized dairymen upon common ground to discuss and compromise or settle the questions involved. They were required by law to act without reference to one another in meeting their common difficulties.

REMEDIES SUGGESTED

The State of New York, first, should have had at this crisis, and should provide for itself for the future, a competent department equipped to thoroughly study and understand the problems involved in advance of the acute stages thereof. Second, this department should be so equipped and managed as to assist the co-operative endeavors of the dairymen to bring about all the ends they sought to achieve by the movement of October, 1916, without the attendant danger of disruption or disaster, loss of money to themselves or suffering to the public.

Third, this department should have been equipped and authorized by law to sit in the councils of the Dairymen's League to aid them in determining the fair cost of production, to certify in advance to consumers and distributors that their demands were just and reasonable, to avoid friction, opposition, bitterness and disaster.

Fourth, to control their action and keep it within the bounds of reason and be enabled to prevent their product, as might well have

happened last year, from falling into the hands of forestallers who might thereby be permitted to extort large sums from the consumer.

Fifth, to have permitted the dealers without fear of the law to have entered into a common negotiation for the purchase of the necessary quantities of the product required by them in their legitimate business, direct from the League without the intervention of jobbers, brokers or speculators of any kind. Thus, in the judgment of this Committee, a peaceful and just solution of these problems without waste and loss can be secured. This Committee is endeavoring, in co-operation with other bodies interested herein, to prepare and present to this session by an adequate measure proper legislation for this end for which it asks the earnest attention and support of the members of the Legislature and the people of the State.

EXTENSION OF THE MARKET MILK ZONE

The following statement showing the extension of territory from which milk is received in the metropolitan district was taken from the records of the Interstate Commerce Commission, docket No. 8558. This statement was made on behalf of the Sheffield Farms Slawson-Decker Company and other milk dealers in New York City, during the recent hearing before the Interstate Commerce Commission in relation to freight rates on milk. This statement, on behalf of the company, says in part:

"Since 1895, not only has New York City enormously increased in population and in demands for milk by reason thereof, but the milk traffic has increased proportionately so that in 1915 the volume of milk received in the New York market, as shown by the Milk Reporter (Exhibit No. 1), has grown from 8,027,040 40-quart cans of milk, cream and condensed milk to 20,065,327.

The general method of handling milk by milk trains furnished by the carriers to all comers without special privilege, with icing service as to L. C. L. shipments and without such service as to carload shipments, has continued with changes only which as will be indicated benefit the carriers, they carrying their milk trains further out on longer hauls as the demands of traffic required and as the traffic furnished to the roads might justify.

Certain changes have occurred in the demands of the city of milk. Within recent years, the main consumption in New York City has been during the hot months of July, August and September. This increase of bulk shipments during the summer months appears by the returns of all the carriers and by the testimony of all dealers who have been interrogated on the subject.

Mr. Horton, president of our company, who has been in the milk business for forty-three years in New York, and who is thoroughly conversant with the

conditions of the traffic, says that fifteen years ago in the retail milk business there would be a falling off of 50 per cent. in the months of July and August. He says (page 334) that to-day our greatest sale is in August, and that in the summer time the dealer has to go the longest distance for his supply.

This increase in distance is due not merely to the increase in demand, but to an extraordinary phenomenon—the falling off in the supply during the summer months in the nearby zone.

We have introduced in evidence a monthly statement for the entire year 1915 of all milk received, interstate and intrastate, by our company (see Van Bomel, Exhibit No. 1). For purposes of this brief, we have placed here in parallel columns our milk receipts for the months of July, August and September, in comparison with the month of January, 1915.

The figures in detail appear below:

ANALYSIS OF MILK RECEIVED (INTERSTATE AND INTRASTATE) BY SHEFFIELD FARMS, SLAWSON-DECKER COMPANY, IN JANUARY, JULY, AUGUST AND SEPTEMBER, 1915 (FROM VAN BOMEL, EXHIBIT 1).

Zones	Jan., 1915	July, 1915	Decrease	Increase
2.....	2,905,612	1,556,222	1,349,390	.....
3.....	3,218,410	3,948,522	.....	730,112
4.....	3,201,796	5,733,888	.....	2,532,092
	<u>9,325,818</u>	<u>11,238,632</u>	<u>1,349,390</u>	<u>3,262,204</u>
	Jan., 1915	Aug., 1915	Decrease	Increase
2.....	2,905,612	1,401,932	1,503,689	.....
3.....	3,218,410	3,242,950	.....	24,540
4.....	3,201,796	4,963,266	.....	1,761,470
	<u>9,325,818</u>	<u>9,608,148</u>	<u>1,503,689</u>	<u>1,786,010</u>
	Jan., 1915	Sept., 1915	Decrease	Increase
2.....	2,905,612	1,773,449	1,132,163	.....
3.....	3,218,410	2,924,356	294,054	.....
4.....	3,201,796	4,436,964	.....	1,235,168
	<u>9,325,818</u>	<u>9,134,769</u>	<u>1,426,217</u>	<u>1,235,168</u>

As will be observed, these figures show that in July, 1915, the second zone, instead of furnishing us as much milk as January, decreased 1,349,390 quarts. In comparison with January, in August it decreased 1,503,689 and in September decreased 1,132,163. In this same period, by like comparison with January shipments, the fourth zone increased its supply 2,532,092, in August 1,761,470, in September 1,235,168.

The extension of the far zone milk supply and its necessity is, we think, sufficiently illustrated by the foregoing figures.

The railroads have actively aided and encouraged the development of milk traffic in the far zone, that is, from 190 miles out. Certain of them made contracts with agents, who entered the business of developing milk territory in the outlying districts on the long haul of these various railroads, paying them commissions of large percentages on gross traffic developed (see 7 I. C.

C., pages 138-142; 143-146). They have also encouraged the dealers themselves to develop this territory, invest in creameries, educate producers to the requirements of the Board of Health standards of New York City and develop railway traffic.

The far zone business, so far as both the dealer and the railroad are concerned, is as the record shows, a competitive business. Certain elements of competition have been indicated in the record: First, New York must compete at many points in the far zone with other cities nearer the point of origin of the milk. A price must be paid by the dealer and a rate furnished by the carrier, which will enable this competition to be overcome, or the railroad loses its long haul mileage and the New York dealer loses his supply. Second, in the far zone the dealer, and the railroad as well, must meet the competition of butter and cheese factories, condensed milk plants and the modern development of manufacturing milk powder. Unless a price can be paid by the New York dealer higher than the price which can be offered by butter and cheese factories, condensed milk powder plants, this long distance milk will be used in a condensed form, involving a loss of railway revenue and the loss to New York City of the liquid milk necessary for its supply. Mr. Horton is specific on this (pages 334 and 335; 352-3).

Year by year, New York City has to go further out into new territory to meet the expanding demand of her milk supply. This consideration was before the Commission in 1895, 7 I. C. C., 157. As shown by the combined statistics given by the Sanitary Milk Dealers' Association and to which our own business is added (see Slaughter's Exhibit 1), 50.8 per cent. of the total milk received by all these New York dealers in the month of March, 1916, taken as a basis for the combined statistics, comes from this fourth zone. This milk is hauled on the average in this zone 290 miles. It is received, as there shown, from 158 separate milk stations and creameries running from 190 to 457 miles from New York. From the second zone, these dealers received in that month 27.3 per cent. of their total supply from 60 stations and from the 3rd zone they took 21.9 per cent. from 45 stations. In other words, these dealers not only received 50 per cent. of their supply from the fourth zone, but their investments, indicated by the number of shipping stations, is far greater in that zone, namely, 158 stations out of the total of 263.

Not only, as indicated above, has the milk traffic increased in volume by extending further out year by year for business, but the demands of New York for fluid milk indicate that such extension process will continue in the future (see Mr. Horton's testimony, pages 335-6).

Mr. Van Bomel, assistant general manager, illustrates, so far as our company's business is concerned, the nature of that extension process. The average haul including all zones for our interstate milk is now 232.7 miles (page 407). This is for March and the August haul would be far longer. At page 408 he illustrates the speed of this expansion movement as applied to our own business. He has been with our company eight years. One of his first duties eight years ago was to build an important plant at Vergennes, Vt. (page 410). Vergennes is 283 miles from New York City. Since that time, eight years ago, we have extended from Vergennes to Franklinville, now our furthest point, which, as shown on the Slaughter Exhibit 1, is 457 miles from the New York terminus. It is some fifty or sixty miles from Buffalo.

We have another plant at Lisbon, 454 miles from the eastern terminus at New York, and is some twelve or fourteen miles from Ogdensburg (page 410).

Mr. Horton says that not only have these changes occurred since 1895, but certain others, which have a bearing upon the New York milk problem. Free passes were formerly had and they were abolished by the Commission in the 1895 decision. The annual cost for the transportation, formerly free, which our company now pays, is between five and six thousand dollars (page 372). Another and more important change is this: In 1895 shipping stations were to a considerable extent supplied by the railroads through milk agents acting under percentage of produced traffic contracts and who leased these shipping stations to milk dealers at from one dollar a year to twenty-five dollars a month, which was the highest price in his experience for such leases under old conditions (page 345). To-day the dealer usually builds his own creameries (pages 346 and 347) at a cost varying from \$8,000 to \$90,000. The demands of the health authorities for increased sanitary requirement have made these increased expenses necessary, both as to plants and other equipment (page 336). The expense of creamery construction amounts, as Mr. Horton's experience goes, to approximately \$100 for every can of milk received, that is, the creamery which will produce 200 cans of milk a day will be one which will cost us \$20,000 for the plant necessary to handle it (pages 348 and 349). In the fourth zone alone this single company has (page 350) an investment for its 35 stations alone of \$499,000, of which \$347,000 is for plants from which we receive interstate shipments. If the average cost of our stations in the fourth zone is applied to the other dealers, who with us have 153 milk shipping plants in that zone, the amount of that investment made by dealers is obviously very large. So far as our company is concerned not only have these creameries been built in this zone, but substantially all of them have been built or reconstructed within the past ten years (pages 335-6).

In other words, developing their business on the basis of existing zone rates in the far zone, the dealers have produced the milk traffic to New York by educating the farmers so that they will comply with the health standards of New York City and by paying them a rate sufficient, both for the interest of the dealer and the carrier, to offset the competition of the butter and cheese factories and other condensers of milk and to overcome the competition of nearby cities (pages 334-6; 351, 2 and 3).

POINT I.

THE CRUX OF THE WHOLE MATTER OF MILK RATES IN AND TO NEW YORK IS THE RATE 500 MILES AND OVER FROM NEW YORK

Our company is in favor of the continuation of the present zones. If, however, the Commission should determine that the zone system adopted by the Commission itself in 1897 is for any reason no longer adaptable to present conditions and that some other system for scaling rates should be adopted, we deem it our duty to present to the Commission as forcefully as we are able the facts and considerations which make it essential that whatever other changes may be made, the rate 500 miles from New York should not be changed; that if there be a closing of the now open far zone, it should be a point in mileage not less than 500 miles from the city terminal; that if a scaling basis of any kind be adopted, the scale must be a rate by which at a point not less than

500 miles from New York the present rate as a maximum rate be reached.

It may be said that there is no logic in an open zone, beginning 190 miles from New York and having no definite outer limit. This, we think, overlooks certain important practical considerations. First, the history of New York milk rates under which the traffic has developed for over forty years. As has been indicated, the railroads themselves originally adopted a flat rate for any distance, which was in force until 1895; second, the zone system adopted in 1897 adapted itself to the wishes of the carriers in leaving the so-called fourth zone an open one, the philosophy of the railroads' position being well expressed in the answer of the New York, Lake Erie & Western R. R., as shown at page 99 of the Milk Producers' case, 7 I. C. C., pages 99 and 100, and which philosophy was only partially limited by the zone system adopted at that time. Third, there are practical limits to the open zone, though not expressed in exact figures in terms of miles. It means that its outer extremity is the run of the milk train. Where there is not enough traffic, there will be no milk train service. The extension of the fourth zone has been a natural process of extending further and further the run of the milk train as business has been developed or is immediately in prospect sufficient to justify milk train service. See testimony of Mr. Van Bomel (pages 417 and 418), as illustrating the practical way in which milk train service has developed. He says:

'There are two practical limitations to the open zone. First, the absence of a tariff specifying a particular individual station as a shipping point and the second is, unless the milk train goes through there they can offer you no service; therefore, cannot accept your shipment other than as freight.'

He illustrates this (page 419).

There is another practical limitation to the open zone as given by Mr. Kallman of the New York Central. It is the distance through which milk can be brought within sixteen hours to New York City in such condition as will meet the requirements of public health.

We do not say that any change of the zone system would result in chaos. It might result in confusion. We do not say that any change which at a point 500 miles from New York increases the present rate paid by shippers will be objectionable from a rate standpoint and will be exceedingly damaging to the interest not only of the producer and dealer, but from the standpoint of the consumer in New York to whom this absolute necessity of life must come.

It is desirable to group these considerations and present them as forcefully as we can as the main point which we make in our brief.

The rate for the fourth zone, which now handles milk for us at points 450 miles from New York is a rate fixed by the carriers, acquiesced in by the commission in 1897 and under which we have made our large investments.

As the Commission says in the Beatrice case, *Beatrice Creamery Co. vs. Ill. Central R. R.*, 15 I. C. C., 109:

'This Commission has several times held that where a particular industry has grown up under rates voluntarily established and maintained by carriers, those rates cannot be advanced without considering the effect upon that industry. There is no such thing as a contract between the railroad and the shipper. That a certain rate should be charged by a rail-

road is a matter of public concern. It cannot ordinarily be made the subject of private contract, but in determining what is the just and reasonable thing to be done, this Commission must consider the effect upon all the parties.

Citing

Banner Milling Co. vs. New York Central, 14 I. C. C. 398.

Western Oregon Lumber Mfrs. Assn. vs. S. P. R. Co., 14 I. C. C., 61;
see also

Waukesha Limestone Co. vs. C. N. & St. Pa., 26 I. C. C., 515, at page 519.

The carriers doubtless felt that the open zone system was the better way to create traffic and for the economical handling of this necessity of life as an article of transportation. That the carriers in adopting this rate and in the further extension of the zone have found this rate to be profitable at the present point of furthest service, now approximating 500 miles, from the terminal, is indicated by their own conduct, in voluntarily extending as traffic increased the run of the milk trains and, in employing agents to go out into far distance territory and develop long distance milk traffic. It is not to be assumed lightly that the contracts made with Westcott and with Millett and the Produce Dispatch were contracts made to develop a traffic which would be non-productive in net revenue. While, to be sure, many of these contracts discussed in the Milk Producers' Protective Association case (see pages 138-142; 143-146) for development of the far zone milk by milk agents for the railroad have lapsed, the business having been created and having acquired its own momentum, it is to be noted that so late as 1908, the New York Central being then in control of the Rutland Railroad, by holding 51 per cent. of its stock, renewed a contract between the Rutland Railroad and the Produce Dispatch to pay 12½ per cent. on the gross earnings of the milk traffic on the long distance territory in Vermont and northern New York operated by that road. We are bringing milk to New York from Lisbon, N. Y., on the Rutland (454 miles). If the present rate on the 500 mile haul does not represent a profit, it is difficult to conceive why the Pennsylvania Railway should now be developing its milk traffic for the New York territory by fair carload lot arrangements as to pickup service (page 399, and following), including ferriage (see page 428), covering distances, so far as our company alone is concerned, of from 323 to 457 miles (see Slaughter Exhibit No. 1), the Pennsylvania stations indicated being between Grover, Penn., 323 miles, and Franklinville, New York, 457 miles.

As indicated by the Slaughter Exhibit No. 1, the dealers whose statistics are there combined received 50.8 per cent. of their total milk from this far zone and on an average haul in this zone of 290 miles in March, which average haul will be greatly extended in August, the season of greatest demand.

Now, the dealer in this fourth zone has to meet the competition which has been indicated to get liquid milk for New York. The dealers have gone into this territory, these long distances, not because they prefer to pay the higher rate in this zone for milk, but because of necessity.

The facts showing the extraordinary falling off of milk supply for New York in the nearby zone during the hot weather of July, August and September, the time of the city's greatest need, has been already indicated in the statement of facts and in the record. Mr. Horton has given his views as

to the cause (see pages 334 and 335). There are doubtless additional causes, such as, for example, summer hotels and boarding places in country localities within the second zone.

Whatever the causes, the facts remain. Our figures show as indicated that in July, 1915, the second zone, instead of furnishing us with as much milk as in January, decreased 1,349,390 quarts, decreased in August 1,503,689 quarts and in September 1,132,163 quarts, all in comparison with January shipments. In that same period the fourth zone milk increased over its January supply in July 2,532,092 quarts, in August 1,761,470 quarts, and in September 1,235,168 quarts. In other words, but for the milk we get on the long haul in the critical period of the year for a sweltering city (mis-called a summer resort), we should have a milk famine every year.

We earnestly request this Commission to study this circumstance and the implications of these figures. There are, we submit, certain self-evident truths which this problem presents.

First, *New York absolutely needs every drop of this fourth zone milk*; second, it is going to need more of it as the years go by. It has to reach out for it further and further; third, this milk can be had only under competitive conditions; fourth, the railway rate now in force, under which dealers have made their investments in countless plants in the fourth zone and under which those conditions are met is one adopted by the railroads themselves, and a disturbance of the rate at this crucial point by the adoption of a scale which at a distance of 500 miles increases this rate in any degree will in effect limit New York's milk supply to her enormous injury at the time of her greatest need.

We are convinced that the method of handling the milk problem of New York, adopted by the Commission in 1897, was eminently wise. In this territory, no scale, graduated by miles, has ever been in force. If such a scale had been adopted in 1897, in view of the added mileage, which year by year has been required to meet the city's need for milk, a serious and heavy burden would have been laid upon the city consumers without justification. It is but the application of an axiom of economics to say that the price of milk in New York City will be the price of the most expensive part of the product necessary for the city's consumption. No shipper will build a creamery at a point from which he cannot bring milk to the market at a profit. The price paid by the city consumer must be such as to produce a profit to the shipper and producer at every point from which milk must necessarily be produced for the market.

If the Commission in 1897 had disregarded the existing conditions, the fact that New York City must receive her milk only from the north and west, nothing from the south or east, had disregarded the fact that no graduated scale had ever been in force, the fact, as the record shows, that even there was in process a continuous extension of railroad haul (see 7 I. C. C., at page 111), and had fixed a graduated scale, the graduation increasing in the long haul, it would have circumscribed the city's milk area and increase the cost of a necessity of life to the consumer.

The producer doubtless has rights which must be considered and some complaints have been made by producers, as shown by the record. From the producers' standpoint, the 1897 situation repeats itself. The nearby producer complains that he is deprived of the benefit of his locality by existing zone

arrangements and more especially by the long haul, from 190 miles to approximately 500 miles, now in practice. The method of relief afforded by the Commission in 1897 is equally applicable now, namely, a finding that the rate adopted by the carriers in the far zone for the present long haul of approximately 500 miles is reasonable and a subdivision of the nearer zones by a reduction of rates. It is our opinion, however, that the so-called benefit of locality, claim of the nearby producer, is a negligible consideration in dealing with the great problem of supplying the largest city in the world with the milk necessary for its life."

This statement on behalf of the milk distributors to the Interstate Commerce Commission showing the growth and development of the traffic is reported herein by this Committee not for the purpose of making the conclusions of this statement the conclusions of the Committee, but because it is a statement of certain phases of the question which the dairyman seldom encounters and it is thought that these views as presented in the Interstate Commerce Commission case will be of much interest to the Legislature and to the people throughout the State.

THE MILK TRAINS

In the Interstate Commerce Commission hearing last referred to, the carriers made the following statement as showing the extent and character of the service furnished by them to the milk traffic. The Committee includes this statement in this report as showing probably as complete a record of the milk train routes as can be well gotten together. It illustrates the tremendous volume of this traffic;

II. CHANGED CONDITIONS SINCE 1897

(a) GENERAL TERRITORY SERVED IN 1897 AND TO-DAY

In 1897 the section of country north and westerly of New York City, comprising Sussex and other counties in northern New Jersey, Orange county, N. Y., and contiguous portions of Ulster and Sullivan counties in New York, together with Long Island, N. Y., the southeasterly section of New York State east of the Hudson River, and some adjoining parts of western Connecticut and Massachusetts constituted the nearby milk producing region from which a large part of New York's milk supply was shipped. Milk and cream were also forwarded from more distant localities in the States of New York, Pennsylvania and Massachusetts (1897 Opinion, p. 104).

Since then the milk producing territory has extended until today milk is brought to New York City from the western and northern-most parts of New York State, from Pennsylvania, Massachusetts, Connecticut and Vermont (Carriers' exhibits). The greatest development of the milk traffic to New York is that on the Rutland Railroad in Vermont and northern New York.

(p. 676). On the other hand the production of milk in the nearby territory has greatly decreased so that today practically no milk is shipped to New York from territory within 40 miles of the New York and New Jersey terminals (p. 333). From the territory served by the Harlem and Putnam divisions of the New York Central the milk and cream tonnage has diminished by more than one-half (p. 673), and no milk is now shipped from points along the east side of the Hudson River (p. 687).

(b) INCREASE SINCE 1897 IN THE DISTANCE FROM WHICH MILK IS BROUGHT TO NEW YORK

In 1897 the longest haul of milk on the Lehigh Valley railroad was 335 miles. At the present time the longest interstate haul is from Camden, N. Y., 400.1 miles (p. 892). In 1897 the most distant milk shipping station of the Ontario and Western was Kenwood, N. Y., 264 miles from the terminal. Today the most distant station is Oswego, N. Y., 325 miles (p. 1009). The most distant shipping station on the Erie Railroad was, in 1897, Hornellsville, N. Y., 331 miles from Jersey City, and 55 per cent of the traffic originated at main line points and branches of the Erie in Orange county, east of Port Jervis, N. Y., which is 87 miles from New York City. Today the Erie brings milk and cream to Jersey City from South Dayton, N. Y., 448 miles distant (Wheeler Exhibit No. 1, p. 1084). In 1897 no milk was shipped over the West Shore from points beyond Syracuse, N. Y., 290 miles from New York. Today milk is shipped from Earlville, 339 miles distant (pp. 659, 675). In 1897 there was no milk traffic on the New York Central west of Albany, 142 miles distant. At the present time milk is shipped from Massena Springs, N. Y., 390 miles from New York, the farthestmost northeastern terminus of the New York Central in New York State (p. 676). The most distant point from which milk is shipped into New York over the Rutland and the New York Central is Lisbon, N. Y., 451 miles away (pp. 659, 676). The milk shipping territory of the Ulster & Delaware has not changed since 1897 (pp. 788, 789). In 1897 the Pennsylvania Railroad carried no milk to New York. The initial shipment was March 1, 1913 (p. 1482). To-day special milk trains carrying milk to New York and Philadelphia are operated daily (p. 1482) from East Aurora, N. Y., 491 miles distant, Horseheads, N. Y., 373 miles, with connections by regular freight or passenger trains carrying milk cars (p. 1473) from Lovell, Pa., 503 miles, and from Tuscarora, N. Y., 499 miles, with service from various intermediate points (Pennsylvania Railroad Exhibit No. 1 (map), Witness Nathans, April 25, 1916, p. 1472).

The maximum distance from which Borden & Company ships into New York today is 451 miles (p. 270). In March, 1916, Lisbon, 454 miles from New York, was the most distant point from which the Sheffield Farms Slawson-Decker Co. shipped. Since that time shipments have been made from Lovell, which is considerably farther (p. 410). In 1895 that company made no shipments from points more than 108 miles from New York (p. 332).

(c) REASONS FOR THE CHANGED CONDITIONS

The extension of the territory from which the milk supply of New York City is drawn has been brought about by the extension of the commuting territory, hastened by the improved train facilities, into what was formerly milk producing territory, and in the Harlem Valley by the acquisition by the

city of a large area in connection with the city water supply (pp. 212, 332, 333, 673, 674). Furthermore, there has been a tremendous increase in the amount of milk demanded by the New York market (p. 212, Milk Reporter, Exhibit No. 1). In addition to the New York city requirements there has developed a demand from summer resorts along the Long Island and New Jersey coasts and cities adjacent to New York (pp. 334, 411).

The development in the traffic from points on the Rutland R. R. in Vermont and Northern New York is the result of a contract between the Rutland and the New York Central and one Stephen C. Millett, which expires in 1919, under which Mr. Millett undertook to educate the farmers along the Rutland to the requirements of the New York City Board of Health, stimulate milk production, erect creameries at his expense and lease them to shippers, supervise the loading of the milk, the icing of it at his expense, the delivery of it, the handling of claims, and to solicit the traffic. The services furnished under this contract are in lieu of similar services and facilities furnished by other carriers themselves. In return for these services Mr. Millett receives 12½ per cent. of the New York Central's proportion of the revenue from the traffic induced by him, and 15 per cent. of the Rutland's proportion. Under this contract the milk traffic on the Rutland has developed from zero in 1898 to eleven cars a day at the present time (pp. 704-706). Most of the creameries have now been sold to shippers (p. 344).

III. SERVICE RENDERED BY THE VARIOUS CARRIERS WITH REFERENCE TO THE MILK TRAFFIC

(a) THE DELAWARE, LACKAWANNA & WESTERN RAILWAY COMPANY

1. *Train Service*

Three regular milk trains are operated daily to carry the milk from the originating points to Binghamton, New York, where it is all consolidated into through trains for movement to Hoboken. One of these trains starts from Utica at 9:15 A. M. and runs through to Binghamton, a distance of 95 miles, arriving there at 1:45 P. M. It consists of from seven to eight cars. Another train leaves Richfield Springs at 9:25 A. M. and reaches Binghamton, 103 miles distant, at 2:15 P. M. It consists of from twelve to thirteen cars. Both of these trains are made up exclusively of milk cars.

A third train leaves Syracuse at 8:55 A. M. and arrives at Binghamton, 80 miles distant, at 1:40 P. M. with from fifteen to sixteen cars of milk. It picks up a car of milk at Cortland from the Cortland County Traction Company, an electric railway, and one or two cars originating on the Cincinnatus Branch of the Delaware, Lackawanna & Western Railroad, and also carries one passenger coach.

In addition to these regular milk trains a passenger train, No. 906, brings one or two cars daily from points north of Syracuse which are cut out at Chenango Forks, a short distance north of Binghamton, and after being iced there are picked up and taken to Binghamton, by the regular milk train from Richfield Springs. And finally a passenger train leaving Elmira at 8:30 A. M. carries two cars of milk (one of which originates on the Ithaca Branch of the Delaware, Lackawanna & Western Railroad) to Binghamton (pp. 830-32).

All of the milk brought into Binghamton by the trains above referred to is consolidated and forwarded to Hoboken in the following trains:

The three trains originating at Utica, Richfield Springs and Syracuse, respectively, are consolidated into two solid milk trains consisting of from eighteen to nineteen cars each, which are run through to Hoboken, a distance of 206 miles, without stopping except to load at one station, pick up a car at another, and to unload two small consignments. They leave Binghamton at 2:35 P. M. and 2:40 P. M. and arrive at Hoboken at 10:27 and 10:32 P. M. respectively.

The two cars of milk brought to Binghamton by the passenger train from Elmira are hauled in a milk train leaving Binghamton at 11:30 A. M. and arriving at Hoboken 9:33 P. M. This train might be called a local milk train as distinguished from the two express trains above mentioned. It picks up all of the milk east of Binghamton originating in Pennsylvania and New Jersey except a small amount originating on the Sussex Branch of the Delaware, Lackawanna & Western Railroad. It arrives at Hoboken with from fifteen to sixteen cars of milk (Record, pp. 831-32).

Three cars of milk originating on the Sussex Branch of the Delaware, Lackawanna & Western Railroad in New Jersey are daily carried in a local passenger train to Hoboken, an average distance of 60 miles. Five other cars of milk originating on this branch was taken to Port Morris, where they are picked up by the local milk train from Binghamton.

A mixed train of three milk cars and one or two passenger cars leaves Groveland, New York, at 6:40 A. M. daily and arrives at Buffalo at 9:40 A. M. It is run primarily for the milk traffic (pp. 832, 852).

The trains above described are run with the very best motive power and maintain their schedules with the same degree of regularity as the Railroad Company's best passenger trains. The service is an express service fairly comparable with the Railroad Company's passenger and express service, particularly in the case of through trains from Binghamton to Hoboken without stop except as above noted. And the return movement of the cars loaded with the empty containers is made with the same speed and regularity—a service which the shippers demand and have to have as their business is conducted (pp. 834-35, 854).

2. *Equipment*

The motive power is of the best that the Railroad Company possesses. The engine that hauls one of the through trains from Binghamton on arrival at Hoboken is sent to the roundhouse, cleaned and oiled, filled with coal and water, and goes back on the Railroad Company's fast mail train at 2:15 in the morning. That represents the class of motive equipment used on the milk trains.

The cars are refrigerator cars, thoroughly insulated and with ice bunkers in each corner, having an average total capacity of three tons. They were built expressly for the transportation of milk and are used exclusively for that service. From the floor down they are the same in every particular as a first-class passenger coach. The Railroad Company has 147 of these cars in service at the present time (pp. 834-35, 854).

3. *Services and Facilities at Point of Shipment*

Each milk train starts from its initial point with a crew of four trainmen and a milk messenger. The train crew loads all less-than-carload shipments, being usually assisted by the creamery employees, except at stations where

a milk car is left, in which case the car is loaded by the consignor and made ready to be picked up when the train comes along, the same as is done in the case of carload shipments. The carload shipments are loaded by the consignors (p. 833).

The Railroad Company provides loading platforms at its own expense at all points of shipment where they are needed. The standard platform is about 30 feet long, usually enclosed and roofed over, and in most cases there is a runway to the platform from the creamery. It is maintained at the Railroad Company's expense (pp. 833, 863).

4. *Terminal Facilities*

The facilities of the Railroad Company for unloading at Hoboken consist of two platforms specially constructed for the handling of milk traffic. The main platform is covered and is from 1,200 to 1,500 feet long. The approach to the platform consists of a 50-foot driveway paved with Belgian blocks. The second platform is about 250 feet long. Each platform has a track immediately adjacent to it and a second track on the outside so that cars can be coupled if necessary (pp. 835, 856).

The trains are broken up after arrival at Hoboken Terminal and the cars destined to Hoboken are drilled by a switch engine to the milk platforms. The cars destined to Newark and Montclair are made up into a special train of milk cars and forwarded to those points. On arrival of the train at Newark the cars destined to Broad street station are set out and a drill engine places them while the road engine goes on to Montclair. On the reverse movement this has to be done also. All this, of course, involves a very considerable switching service (pp. 833, 835, 866).

The less-than-carload shipments are unloaded by the Milk Department employees and delivered to the consignees on the platform. The Railroad Company maintains a force of milk handlers, cashiers, and other employees—about 25 in all—assigned to this traffic, sufficient to unload the milk, load the empties for the return movement, collect the freight charges, etc. Occasionally, of course, the consignee's truckman will assist in handling the milk from the car (pp. 833, 834, 863).

5. *Refrigeration*

The present rates on less-than-carload shipments include free icing of cars. The Railroad Company has four icing plants along its road for that purpose (p. 880).

6. *Return of Empty Containers*

As the milk is handled in specially constructed cars and the present rates include a return of the empty containers to the original points of shipment, there must necessarily be a return movement of each of the milk trains above described, of the same general character as the initial movement. The return movements are made with the same degree of regularity and on the same schedules as the initial movements. This return service is required by the shippers. It is indispensable to the successful conduct of their business that the empty containers should be promptly returned so as to be washed, distributed and filled ready for the next day's shipments (p. 834).

(b) NEW YORK CENTRAL LINES

1. *Train Service*

Milk traffic of the New York Central and West Shore Railroads reaches New York city and Weehawken terminals in nine special milk trains, one terminating at Weehawken, one at Melrose Junction, New York city, and seven at Thirty-third street, New York city (p. 656). These nine trains contain about 105 cars during the winter months and about 130 cars during the summer months (p. 653). Of the trains terminating at Thirty-third street, New York city, one train contains milk from the Central New England Railway exclusively, and two trains contain milk from the Delaware & Hudson Company exclusively. One train terminating at Melrose Junction contains milk from the Rutland Railroad exclusively. The milk contained in five of the milk trains terminating at New York city and Weehawken, N. J., is gathered by twenty trains on various divisions and branches of the New York Central and West Shore Railroads, and by separate trains of the Norwood & St. Lawrence Railroad, Lowville & Beaver River Railroad, Carthage & Copenhagen Railroad, Otsego & Herkimer Railroad, and Albany Southern Railroad. The milk traffic received by the New York Central Railroad from the Delaware & Hudson Company at Albany and Troy originates at stations on the Delaware & Hudson Company, principally in New York State, and stations on the Cooperstown & Charlotte Valley Railroad, and Schoharie Valley Railway, and is hauled in special milk trains of the New York Central Railroad from Albany to New York city. Milk traffic received by the New York Central from the Central New England Railway originates at points on the Central New England Railway in New York State and is hauled by the New York Central Railroad from Beacon, N. Y., to Thirty-third street, New York city, stopping at Tarrytown and Yonkers to detach loaded cars. The milk traffic received by the New York Central Railroad from the Rutland Railroad originates at points on the Rutland Railroad in New York State and Vermont (principally in New York State) and is hauled by the New York Central by special milk train from Chatham to Melrose Junction, a distance of 123 miles (pp. 656, 657). There are three trains handling milk originating at points on the New York Central and West Shore Railroads west of Albany, N. Y. (p. 658). The milk carried on these trains is gathered on eighteen trains of the New York Central Railroad and by five short connecting railroads (p. 659).

The average number of cars per train per day of milk and cream handled by the New York Central and West Shore Railroads ranges from nine to fourteen according to season (p. 660). It is impracticable to consolidate cars into large trains by reason of the necessity for high speed of the movement and early deliveries at New York terminals (p. 661).

The Rutland Railroad milk train leaves Ogdensburg at 7:20 A. M. daily and arrives at Melrose Junction at 1:15 A. M. Lisbon is the first point at which this train picks up milk, and the distance from Lisbon to Melrose Junction, New York city, is 453 miles via Chatham. The West Shore Railroad milk train leaves Campbell Hall, N. Y., at 3:50 P. M. daily and picks up cars and loads milk at stations on the Walkill Valley Branch and receives milk from the Ulster & Delaware Railroad at Kingston, and is run as a solid train from Kingston to Weehawken stopping at Newburgh for loading. It arrives

at Weehawken at 8:50 P. M. daily. Of the two trains received from the Delaware & Hudson Company, one leaves Albany at 6:49 P. M. and is run solid to Thirty-third street, arriving at 12:40 A. M., and stopping at Yonkers to detach loaded cars. The other leaves Green Island (Troy) between 6:00 and 7:00 P. M., and is run solid to Thirty-third street, arriving between 10:30 and 11:00 P. M. (p. 658). The most distant points from which the three milk trains of the New York Central and West Shore Railroads, west of Albany, operate are Ogdensburg, N. Y. (distance to New York, 453 miles); Massena Springs, N. Y. (distance to New York, 387 miles); Cape Vincent, N. Y. (distance to New York, 345 miles); New Haven, N. Y. (distance to New York, 305 miles); and Earlville, N. Y. (distance to New York, 339 miles) (p. 659). Of the three New York Central milk trains, one train is run as a solid train from Lowville to Thirty-third street (distance, 295 miles), another train is runs as a solid train from Fort Plain, N. Y., to Thirty-third street (distance, 200 miles), and the third train is run as a solid train from Albany to Thirty-third street (distance, 142 miles) (p. 660).

All trains are operated daily, including Sundays and holidays. The average speed of milk trains, exclusive of stops, is between 35 and 40 miles an hour (p. 659). All milk trains are run on passenger train schedules (p. 660).

All milk loaded in cars at interior points on any one day reaches the New York market from 9:00 P. M. of the same day to 1:15 A. M. of the following day (p. 660).

2. *Equipment*

The milk cars of the New York Central are of standard passenger construction so far as the trucks and air brakes are concerned. They are fifty feet in length and the bodies are similar to baggage or express cars except that the cars are constructed with insulated floors and sides, and with double doors. The sides and roofs of the cars have hair felt insulation and the floor has a two-course burlap plastic insulation. The cost of these cars has increased from approximately \$1,250.00 in 1889 to \$1,785.00 in 1899 and \$3,850.00 in 1914. The capacity of the standard car today is 330 40-quart cans. The capacity of the same cars for 12-quart cases of bottled milk is 584 cases in four tiers. It is not practicable to load more than one tier of cans (pp. 688, 689).

3. *Terminal Facilities*

Terminal facilities: At Melrose Junction there is a milk platform at which 26 milk cars can be placed at one time. From 13 to 17 cars of milk are handled daily according to season. The facilities, therefore, at Melrose Junction, are considerably in excess of the current requirements. At this station from 16 to 18 employes are exclusively concerned with the delivery of milk after arrival, and in the reloading of the empty packages into cars during the night.

At 130th Street station there are milk platforms and facilities for delivery of 40 cars of milk at one time. At this station from 26 to 30 employees are exclusively concerned with the delivery of milk traffic, and the handling of the empty packages. At this station 75 per cent. of the time consumed by night switch engine is devoted to switching milk cars.

At Thirty-third street station there are milk platforms at which 32 cars are placed at one time on three tracks adjoining three unloading platforms with two driveways; there are also milk platforms and freight station platforms at which from 18 to 23 cars are handled. At this station from 44 to 64 employes are exclusively concerned with the delivery of milk traffic. At this station one night switch engine is assigned to switching milk cars.

At Weehawken there are five platforms at which milk is unloaded from cars on five adjoining tracks having capacity for 46 cars at one time. Of these, one platform and track is used for West Shore Railroad milk, and four platforms and tracks for milk of the New York, Ontario & Western Railway, which uses the terminals of the West Shore Railroad at Weehawken. At this station from 15 to 18 employes are exclusively concerned with the delivery of West Shore Railroad milk and the handling of the empty packages.

All of the station facilities assigned for the delivery of milk and cream traffic and the receiving of empty packages or containers at Melrose Junction, One Hundred Thirtieth street and Thirty-third street, New York city, and Weehawken, N. J., are used exclusively for the handling of such traffic and are not practically available for the handling of other traffic (pp. 622). The facilities of the New York Central Railroad today at Melrose Junction are 33 1-3 per cent in excess of the current requirements, and there is ample space for increasing the facilities for the milk traffic five-fold. The terminal facilities at Thirty-third street and at Weehawken are also in excess of the requirements (p. 663). The plans for the elevation and depression of the New York Central tracks on the west side of New York city contemplate the erection of milk platforms and tracks at a new Thirty-third street station with a capacity of 61 cars at one time, on six tracks with six platforms and three driveways, and at One Hundred and Thirtieth street the plans contemplate platforms and tracks for 47 milk cars at one time (p. 664). These plans are undergoing revision to increase the facilities at One Hundred and Thirtieth street to accommodate 66 cars at one time (p. 665).

The employes at milk terminals are paid by the day and are not available for other services. The report around 8:00 o'clock in the evening and get through about 4:00 in the morning. They are handling empties until the trains arrive, then they unload the filled packages and load the empties brought by the draymen (p. 748).

4. *Return of Empty Containers*

The cars containing empty packages or containers are returned daily to points of origin by special train movement (p. 659).

(c) LEHIGH VALLEY RAILROAD COMPANY

1. *Train Service*

The Lehigh Valley Railroad Company operates two special through milk trains: One from North Fair Haven on Lake Ontario, 386 miles from Jersey City (p. 886); and the other from Canastota, N. Y., 382 miles from Jersey City (p. 888). The train originating at North Fair Haven leaves that point at 7:50 A. M., arrives at Sayre, Pa., at 1:30 P. M., where it picks up the cars of milk previously assembled at that point by three other trains and at 3:30 P. M. arrives at Tunkhannock, Pa., where the milk from three more

trains is picked up, making a total of 15 cars gathered into one train by six gathering trains. From Tunkhannock to Jersey City, a distance of 207 miles, it runs as a solid train, arriving at destination at 10:30 P. M. (pp. 886, 887). The other through train which starts from Canastota at 9:15 A. M. and arrives at destination, Jersey City, at 11:00 P. M., picks up 8 cars of milk on the Elmira and Cortland Branch between Canastota and Van Etten, N. Y., and at Newark picks up 3 more cars of milk left at that point by the "Jersey Little Milk Train." The operation of this second through milk train was made necessary by the demands of the shippers on the Elmira and Cortland Branch for a better loading and shipping hour in order that they would be enabled thereby to meet the milk requirements of the Board of Health of New York city (pp. 888, 892). Before the time for the departure of this train from Canastota was set back to 9:15 A. M. it was run so as to connect at Sayre, Pa., with the first through milk train above described. From Sayre, Pa., to Jersey City, therefore, the same quantity of milk that must now be handled by two trains was formerly handled by one (pp. 894, 954). Without this change, however, that is, making the train leave Canastota one hour and twenty minutes later than formerly, which results in the necessity of operating it from Sayre, Pa., to Jersey City, as a separate train, the milk producers on the Elmira and Cortland Branch would not have sufficient time in which to prepare their milk for shipment and consequently could not ship (pp. 954, 955).

In addition to the two trains above described, a train known as the "Jersey Little Milk Train," carrying on an average of five cars, is operated from Easton, Pa., to handle the milk shipments from points in New Jersey. At South Plainfield one car is detached for Perth Amboy, and less than carload shipments are unloaded also at South Plainfield, Roselle Park and West Elizabeth. At Newark three cars are detached to be moved thence to Jersey City by the through train from Canastota (pp. 887, 919).

2. *Equipment*

The milk cars on the Lehigh Valley Railroad are of the most approved type of milk car construction. Of the 136 cars used to handle the traffic, 40 will carry 225 40-quart cans, or 600 12-quart cases each, while each of the remaining 96 cars will carry 320 40-quart cans or 725 12-quart cases (p. 890). They are constructed on passenger equipment lines, most of them having steel underframes and passenger car running gear, which is necessary on account of the high speed at which they are operated (pp. 913, 914). Ice bunkers are located in each corner of the car separated by a vestibule in the end of the car with a tight-fitting door in addition to the outside end door so arranged that by the use of these two doors the interior main body of the car need not be opened to the outside temperature. The cars are insulated (p. 913). The locomotives which haul the milk trains are of the best type in use on the railroad (p. 968).

3. *Terminal Facilities*

For the exclusive use and accommodation of its milk and cream traffic, the Lehigh Valley maintains and operates a milk terminal at Warren street, Jersey City, which has a capacity of 24 milk cars; another at Avenue D, Jersey City with a capacity of four cars; and a third at Pioneer street,

Newark, with a capacity of five cars. No other freight of any kind is handled at these special milk terminals (p. 894). At Warren street, the Company employs a foreman, assistant foreman, an inspector, two milk clerks and a force of from 21 to 22 milk handlers to handle the traffic (pp. 896, 940). At the other terminals proportionate crews are employed. These men handle milk shipments only.

In addition to the milk handlers at the terminals, all milk trains while running through the milk districts carry extra men to assist in handling the less than carload shipments of filled and empty containers (pp. 895, 901), in order that there will be as little delay as possible at the stations (p. 895).

The work of unloading the less than carload shipments from the cars to the platforms and of loading into the cars the l. c. l. shipments of empty containers to be returned to the shipping points, is performed exclusively by railroad employees; they being the only persons, according to the Company's rules, who are allowed to enter the cars (pp. 885, 894, 942).

4. *Return of Empties*

All of the cars brought to Jersey City in the two special milk trains above referred to are returned in one train which leaves Jersey City at 2:30 A. M. and runs as a solid train to Sayre, Pa., where eight other trains are utilized in distributing the milk cars and empty containers to the various points of production on the main and branch lines.

The Jersey Little Milk train on its return movement leaves Jersey City at 2:00 A. M. and distributes the empty cans and cases to the milk shipping stations in New Jersey.

These returning trains of empty containers require and are given the same expeditious handling on their return movements as they receive on the movement into New York.

All milk trains are operated at passenger train speed (p. 970). No trains on the road have faster schedules. Trains carrying all other traffic, including in many instances, passenger trains, are sidetracked (L. V. Exhibit 6) whenever such is necessary to insure the arrival of the milk trains at destination on time. Every effort is made to give the traffic the preferred handling which by nature it requires (pp. 889, 974).

5. *Refrigeration*

Refrigeration is a service which is included in the present less than carload rates. In furnishing this refrigeration service the Lehigh Valley Railroad uses annually about 30,000 tons of ice. For approximately 240 days of each year it is required to ice its milk cars to full bunker capacity, while even for the remainder of the year partial icing is necessary. For the entire year the average amount of ice furnished daily per car by the Railroad Company is 3.41 tons. Seven icing stations, located on the Lehigh Valley Railroad, are used exclusively to ice milk shipments (p. 896).

(d) ERIE RAILROAD COMPANY

1. *Train Service*

The milk train service on the Erie Railroad consists of four trains, one starting at Salamanca, 413 miles from Jersey City, at 7:30 A. M., arriving at Jersey City 11:55 P. M. This train takes care of the milk shipments offered

at stations on the Alleghany Division and the Susquehanna Division from Hinsdale to Hickory Grove, inclusive. From June 1 to Dec. 31, 1915, it is necessary to run this train in two sections over the Alleghany Division in order to bring the milk and cream into Jersey City on schedule time. One section starts at Salamanca 7:30 A. M., the other at Cuba, 383 miles from Jersey City, at 10:00 A. M. The two sections are consolidated at Hornell, 331 miles from Jersey City. From August 4 to October 14, it is necessary to run this train in two sections, not only over the Alleghany Division but also over the Susquehanna Division. In other words, the two sections are consolidated during this period at Susquehanna, 192 miles from Jersey City, instead of at Hornell, 331 miles from Jersey City. This train picks up cars at Hornell from the Buffalo Division, at Corning from the Rochester Division, at Elmira from the Tioga Division, and at Susquehanna from the Jefferson Division, the cars having been brought from these branch lines to the junction points in local passenger trains (pp. 1067-1069).

The second train starts at Susquehanna, 192 miles from Jersey City, at 10:50 A. M., arriving at Jersey City at 10:15 P. M. This train picks up cars and loads milk from stations Susquehanna, Pa., to Greycourt, N. Y., and picks up cars from branch lines at Lackawaxen, Pa., from the Wyoming Division, at Middletown, N. Y., from the Middletown and Crawford Branch, at Goshen, N. Y., from the Lehigh & New England Railroad, and from the Montgomery Branch of the Erie Railroad, and at Greycourt from the Newburgh branch (pp. 1070-1071).

The third train leaves Pine Island, N. Y., 71 miles from New York, at 4:09 P. M. Picks up cars and loads milk on the Pine Island Branch, at Goshen on the main line and other milk stations between Goshen and Monroe, N. Y., from which point it runs through to Jersey City, arriving 9:20 P. M. This train picks up milk at Greycourt from the Lehigh & Hudson Railway and from the Newburgh Branch of the Erie Railroad (p. 1071).

In addition to these three trains a special train is run daily from Waldwick, N. Y., to Newark, N. J., and return, which takes L. C. L. shipments and cars from the above three milk trains, and delivers them at Ridgewood, Paterson, Passaic, Rutherford and Newark, N. J. (pp. 1070-71).

The New York, Susquehanna & Western Railroad has a train which leaves Hanford, N. J., 73 miles from Jersey City, at 3:58 P. M. This train picks up cars from the Middletown and Unionville Railroad at Hanford, and loads milk at milk stations, Hanford to Franklin Furnace inclusive. Another train leaves Stroudsburg, 101 miles from Jersey City, at 3:26 P. M., and picks up cars and loads milk at milk stations Hainesburg to Sparta, N. J., inclusive. These two trains are consolidated at Beaver Lake, N. J., 53 miles from Jersey City, and run through to Jersey City, arriving 9:38 P. M. From this train milk is unloaded at Butler, North Paterson, Paterson, Hackensack, Ridgely Park and Homestead, N. J., and cars are set off at Paterson and Hackensack (pp. 1071-1072).

Milk trains are run on a regular schedule, and between station their running time is often as high as sixty miles an hour. This high speed is necessary in order to take care of the delays necessary in loading and bring trains in on their schedule time. Milk trains are given preference over high-class passenger trains. When necessary through passenger trains are sidetracked in

order to get milk trains through on their schedule time. No trains on the run run faster than milk trains between stations (pp. 1078-1081).

Passenger engines of the very highest type are used on the milk trains (p. 1133).

2. *Terminal Service*

The milk platforms of the Erie Railroad and New York, Susquehanna & Western Railroad are located at Pavonia avenue, Jersey City, near the passenger station (pp. 1055-6).

There are five platforms for handling the milk shipped via Erie Railroad and two for the milk shipped via the N. Y. S. & W. These platforms will accommodate sixty cars. There are 38 to 40 milk handlers at these platforms exclusively engaged in unloading milk and loading the empties. These milk handlers receive \$45.00 a month. In addition to this force the Milk Agent at Jersey City has a foreman, cashier and two clerks. In addition to the milk handlers at Jersey City there are also milk handlers on all the trains, whose business it is to load the milk. One switch engine is used exclusively in switching the milk cars and setting them alongside the platforms at Jersey City (pp. 1073, 1114, 1120).

3. *Return of Empties*

The empty cans and cases are returned by three trains daily on the Erie Railroad and one on the N. Y. S. & W. The first train on the Erie leaves Jersey City at 2:35 A. M., the second 3:45 A. M., and the third at 4:30 A. M. The N. Y. S. & W. train leaves Jersey City 3:25 A. M. (p. 1072).

(e) PENNSYLVANIA RAILROAD COMPANY

1. *Train Service*

The Pennsylvania Railroad Company operates but one milk train into New York city, a train known as BF 10, which was established May 25th, 1913 (p. 1531). This train originates at East Aurora in western New York, and runs daily between that point and New York city, leaving East Aurora customarily at 8 A. M. and arriving at Jersey City at 12:15 A. M. and at Flatbush avenue, Brooklyn, at 1 A. M. (p. 1481).

The train is graphically pictured on Pennsylvania Railroad Exhibit No. 1, and the service rendered thereby is described in detail by Mr. Nathans, the Milk Agent of the Pennsylvania Railroad Company, in his testimony on pages 1472 and 1481.

The train picks up cars at various points along its route between East Aurora, N. Y., and Harrisburg, Pa. The number of cars which it moves varies from 18 or 20 to 9 or 10 (p. 1479). When it is running heaviest, it sometimes requires two engines between Williamsport and Harrisburg and runs in two sections between Harrisburg and Philadelphia (pp. 1502, 3, 4).

The train is classified at Olean, at Emporium Junction, and at Williamsport.

During the typical period selected for special investigation at the request of the complainants' counsel (pp. 1484-5). the traffic transported on the train was exclusively milk and cream, except for certain express traffic which averaged only 3-10 of a car (p. 1485).

The distance from East Aurora to Flatbush avenue, Brooklyn, is approximately five hundred miles.

While BF 10 is the only milk train operated by the Pennsylvania Railroad Company into New York city, a small quantity of milk is handled from points in New Jersey. This milk is referred to by Mr. Nathans in his testimony on page 1473. It consists of two cars, one moving from Trenton, the other from Plainsboro, N. J., to Jersey City, in Adams Express trains.

2. *Equipment*

The cars used for the transportation of this milk are of three kinds, referred to at the foot of page 32 in the brief filed on behalf of the respondents in the Philadelphia Milk Exchange case, docket No. 7826. The note at this point reads as follows:

"The testimony shows that the cars used in the milk service involve an investment of more than half a million dollars and include 94 refrigerator cars, costing approximately \$1,595, each (234-235); 27 cars known as the B-D. R. type, baggage cars fitted up specially as refrigerators both in lining, insulation and ice bunkers costing \$3,255 each (235); and 36 60-foot steel refrigerators known as the R. 60 type (233), costing \$7,665 each (235). It is obvious that the equipment is of more than ordinary value."

3. *Return of Empty Containers*

The empty cans are returned to the point of shipment with substantially the same service and the same expedition as the initial movement (p. 1501).

(f) NEW YORK, ONTARIO AND WESTERN RAILWAY

1. *Train Service*

The New York, Ontario & Western Railway Company operate three special milk trains as follows: Train No. 14 leaves Oswego, N. Y., a point 325 miles from Weehawken, N. J., at 8:35 A. M., and picks up milk on the main line from that point to Sidney, a distance of 125 miles. It also takes the milk from the Rome and Utica Branches and runs as a solid train from Sidney, N. Y., to Weehawken, N. J., a distance of 200 miles, arriving at 11:05 P. M.

Train No. 10 leaves Edmeston, N. Y., a point 282 miles from Weehawken, N. J., at 11:20 A. M., and arrives at destination at 9:50 P. M. This train moves the milk from the New Berlin Branch, the Unadilla Valley Railroad, the Scranton Branch, the Port Jervis and Kingston branches, and the Central New England Railway.

Train No. 12 originates at Sidney, N. Y., a point 200 miles from Weehawken, N. J. Its load is gathered from points on the main line to Cornwall, N. Y., and from the Delaware and Northern Railroad, Delhi Branch, and from the Middletown and Union Railroad. This train arrives at Weehawken at 8:55 P. M.

2. *Terminal Facilities*

The New York, Ontario & Western Railway Co. has only one milk terminal, which is located at Weehawken, N. J. The terminal facilities are furnished by the New York Central Railroad Co., but the labor necessary to handle the business is furnished by the New York, Ontario & Western Ry. Co., and consists of a milk freight collector, who has an office force besides himself of four men, and an outside or platform force consisting of a foreman and 30 or 40 men, according to the demands of the traffic at different seasons of the year.

IV. VOLUME OF THE MILK TRAFFIC

The Erie Railroad revenue from the milk and cream traffic for the year 1915 on shipments originating on its line and excluding those received from connections was \$588,439.91 (Wheeler Exhibit No. 1, p. 1084). The corresponding figure for the New York, Susquehanna & Western Railroad was \$78,184.33. (Wheeler Exhibit No. 2, pp. 1084, 1085).

During the year 1915, the New York, Ontario & Western Railway moved 2,335,751 40-quart cans of milk and 176,003 40-quart cans of cream, and the gross revenue from this traffic was \$870,035.55.

During the year ending September 30, 1915, the Lehigh Valley carried to the New York market 1,728,099 40-quart cans of milk and cream, and 1,318,673 12-quart cases of milk, making a total, when reduced to units of 40-quart cans of 2,123,702. Of this total 82,305 40-quart cans were cream (p. 885). The total revenue derived from this traffic for the same year was \$746,321.39 (p. 893).

The shipments over the Delaware, Lackawanna & Western for the year 1915 aggregated 3,087,589 cans of milk and 88,657 cans of cream (Milk Reporter Exhibit No. 2). The gross revenue derived by this road from all of its milk and cream traffic interstate for the year 1915 was \$919,947.83 and on its intrastate traffic was \$195,944.04 (Zippel Exhibit No. 1).

Of the entire milk and cream traffic transported to New York Harbor terminals by common carriers the New York Central and West Shore Railroads handle approximately 38 per cent of which over 90 per cent. originates in New York State and is transported entirely within the State (p. 653). The total number of 40-quart cans of milk, cream and condensed milk handled by the West Shore was 884,613 and the long haul milk on the New York Central totaled 5,205,720 40-quart cans (Milk Reporter, Exhibit No. 1). The total earnings of the New York Central and West Shore from the traffic were in 1915, \$2,024,144.71 (Kallman Exhibit No. 1, p. 654).

A statement filed by the Pennsylvania Railroad in a letter to the Commission, dated May 11, 1916, showing the volume of milk traffic shipped to the New York district for the first seven days of each month of the year 1915, gives a total of 3,734,670 quarts, the revenue on which was \$35,726.98. The revenue for the year would be approximately four and one-third times this, or \$150,000.

V. FLUCTUATION IN VOLUME OF MOVEMENT

The milk traffic is not regular in amount, but varies very much from day to day, depending upon the New York demand. If the demand for whole milk in New York city falls off, the milk in the country is used for making cream, condensed milk, butter or cheese. In the summer season milk shipping stations may ship one day 150 cans of milk and the next day 10 or 15 cans of cream, or possibly nothing. The milk shipping station is usually owned by the New York dealer, and his shipments are controlled by the demand in that market. He will manufacture in the country if there is no demand for whole milk. The railroads have to provide equipment to handle the maximum quantity of business, although it varies from day to day (pp. 1073-75). The result of this fluctuation in business is the light loading of cars (pp. 1077-1078). The receiver in New York telephones or telegraphs the milk shipping station or creamery that whole milk shall not be shipped, that it shall be con-

densed or made into cream. The railroad company does not know until the train arrives at the station what the shipments will be and therefore has to run cars to take care of the possible maximum (p. 1118).

In presenting herewith the statement made by the carriers before the Interstate Commerce Commission, it should be understood that this Committee includes it herein so that the history of the methods of transportation may be put on the record. Any claims or conclusions unconnected with the movement of milk trains are not to be taken or accepted as the conclusion of this Committee.

EXHIBIT 300

The Committee had the advantage of the testimony of Mr. John J. Dillon, present Commissioner of Foods and Markets of the State of New York, and of certain other witnesses who seem to be concerned in its work. The testimony given by those gentlemen follows:

JOHN J. DILLON, called as a witness, testified:

"I reside in the city of New York. The title of my office is Commissioner of the Department of Foods and Markets. That is a State Department. The powers of the office are designed and intended to be administered throughout the State. It is not exclusively for the city of New York. The Department was created in April, 1914, but a commission was not appointed until December of that year. The organization of the department was begun about the first of the year 1915. It was a new departure. The act defined its purposes.

Mr. Ward.—What was that?

Mr. Dillon.—To help find a profitable market for the products of the farms of the State, investigate the conditions of distribution of farm food products in all its phases, and to effect and establish an efficient and economic system for the distribution of farm food products in the hope that the saving and distribution would result in a better reward to the farmer and a cheaper food to the consuming public.

I gather that as having knowledge of the purposes and not the act itself. I was appointed the first commissioner. The law is a

part of the General Business Law of the State. It is not an Agricultural Law. \$15,000 was appropriated in 1914. The act provided a salary for me of \$6,000 a year. There was no budget in the appropriation. Governor Glynn was Governor.

It originated in this way. The New York State Agricultural Society called a special meeting to consider a means for affecting better distribution of farm food products. I think it was in 1912. After a two days' discussion of the problem, no satisfactory measure was developed and as a final resort the convention provided for a State standing committee on co-operation and they appointed me chairman of that committee with power to organize my own committee to work out the problem. I went to Europe that summer to study the problems over there and after my return I worked on it for about a year with a committee that I devised of about one hundred of the leading agricultural men throughout the State, including representatives of the different State institutions, and we developed this bill and this plan as a result of the work of that committee.

Mr. Ward.— Will you give us a sketch of where you studied in Europe, of what markets and where and what you absorbed?

Mr. Dillon.— In Brussels, in Antwerp, in Paris, in Leon and in Berne, and I did not go into Germany, but in England and I went through some of the Irish markets.

Mr. Ward.— How long a time were you engaged in that work?

Mr. Dillon.— Well that was not — I did that work in connection with a vacation and I did not keep — I think may be half of my time abroad while I was well; I think I put in probably about five or six weeks of it.

Mr. Ward.— Did any distinguishing features of the economical distribution of food products which are not practiced by us strike you in that investigation?

Mr. Dillon.— Yes, they did. Conditions over there are quite different from our conditions and our problems here, so that my conclusion was and my report was that we could not hope to take in its entirety any of their systems over there and transfer them here and expect them to work out to solve our problems.

Mr. Ward.— Why not?

Mr. Dillon.— Well, because the conditions are quite different.

Mr. Ward.— Well, why?

Mr. Dillon.— For example, the markets over there are supplied quite largely from the farming country surrounding the cities and towns, even in as big a place as Paris, the great bulk of the produce is brought in on the wagons in the early morning to the Hall Centrale.

Mr. Ward.— What kind of products do you refer to?

Mr. Dillon.— I refer to all vegetables and food products and to some of their native poultry and meat products.

Mr. Ward.— But the fruits of Southern France will be in season in the markets of Northern France, as here.

Mr. Dillon.— They get some of those, but the difference is this, that with them the great bulk of their food products come from their own environment and a smaller portion comes from a distance.

Mr. Ward.— Butter, cheese and wheat won't come from their own environments.

Mr. Dillon.— No, sir, but they come — their products — but as I say, the bulk of their products, particularly vegetables and fruits, come from the nearby farms.

Mr. Ward.— That is the current fruits?

Mr. Dillon.— Yes, sir.

Mr. Ward.— The ones that in season at that market?

Mr. Dillon.— Yes, sir.

Mr. Ward.— But they are abundantly supplied; those markets are abundantly supplied from all over the world.

Mr. Dillon.— That may be, but as far as my observation went, as far as my information goes now, the bulk of their products came from their environments there.

Mr. Ward.— That cannot be possible in the city of London.

Mr. Dillon.— Well, the city of London is quite different. The city of London does get its large products — but there is nothing in the London market to my mind that particularly commends it.

Mr. Ward.— Is there anything in the Paris market that does?

Mr. Dillon.— Yes, sir; there is very much in the Paris market. In the first place, the assembling of the products there for the general market; they have one general market there right in the heart of the city; it is around the Hall Centrale; there are some 22 acres. I think they are under one market. It is owned by the city of Paris operated under the State and city, controlled by officials; it is entirely under the hands of the national officials.

Mr. Ward.— They have control of it, but who actually does the bringing in of merchandise and the selling of merchandise, and for whose account, individual traders or by the city?

Mr. Dillon.— It is done by the city and by the President of the Prefect; that is what they call him there. The city government and state government are very closely interwoven one with the other, and the market there — I have not looked that up very recently and I cannot be sure, who does the selling, but my recollection is that it was largely under the control of the Prefect of the district there. The farmers in the neighborhood bring their products in very early in the morning and display them, many of them right out on the streets and in the yards, and they have a certain number of hours up to half-past seven in the morning they have the use of those streets for their market. Then the produce that comes in from a distance is consigned to the market; it is handled there by the officials, city and prefect officials. They act as salesmen and they sell very much of it at auction. There are state weighers licensed by the state and any buyer has a right to put his food on the scales and have it weighed, an official weighing of it. We have no such system that I know of here. We have the privilege here of having the scales tested, but there the scale is not only tested, but one man becomes an official weigher. There is a fixed scale of prices for that and the man that requests the service pays for it.

Mr. Ward.— So that the state appointed officials to act as commission men or distributors.

Mr. Dillon.— Well, hardly, I would hardly designate him as a commission man, but he acts as a factor in distribution.

Mr. Ward.— For a commission or percentage?

Mr. Dillon.— I did not go into that to know whether that percentage is paid into a general fund and then he is paid a salary or whether that just goes to him.

Mr. Ward.— In either event, it would be the same.

Mr. Dillon.— Practically.

Mr. Ward.— The merchandise must bear the burden of the state salesmen in the state market?

Mr. Dillon.— Yes, sir.

Mr. Ward.— What did you find out about the Paris system that you think would be unsuited to our conditions other than you have already described, anything further? For instance, we have a tradition in this country that private parties can do such work under our system of government more economically and effectively than a government can. That is, our economists say that the Parez departments which you attempt to describe might be carried on at a much less expense than the municipality carries it on by private enterprise, the private operations conducted usually at half the expense of state or city conduct of it. What is your observation as to that theory? Is there anything in it?

Mr. Dillon.— Well, the observation is this. That in many of the products of France that were displayed and sold in the market, I traced about twenty cents of the consumer's dollar that went to distribution; that is, about 20 cents on the dollar was about the cost of distribution.

Mr. Ward.— Can you refer us to some particular product where that demonstration was made?

Mr. Dillon.— I made it in France on vegetables, eggs and poultry.

Mr. Ward.— That was in Paris?

Mr. Dillon.—In Paris, yes, sir; and I found practically the same thing in Leon in the market there, and in the Brussels market. The cost there seems to run about 20 cents. With us, it costs about 65.

Mr. Ward.—We have heard that statement from several different angles and different sources, that same statement, that it costs us about 65. Can you give us a concrete example that will demonstrate that for the record of this Committee? We have not been able to demonstrate it by the examination of witnesses and it has occurred to me that we have not been able to demonstrate it in that way because we did not reach the right sources.

Mr. Dillon.—Of course, your difficulty is to get at averages. In some cases it runs more; and in some cases, it runs less.

Mr. Ward.—Well, but we ought to have some specific instances.

Mr. Dillon.—Here is a specific instance. Eggs were bought last spring in the Western states at 18 cents to 20 cents a dozen; they were put in cold storage and carried during the summer. Now they went into cold storage on an average about 22 cents a dozen; they could be sold at a nominal profit wholesale, candled, ready for the retailer to-day at 28. The wholesale price for them is 37, 38; I don't know what they are to-day, and the retail price of those eggs throughout the city varies from 45 to 60 cents.

Mr. Ward.—Well, is that what is meant when parties engaged in this propaganda and who are said to be studying these things assert that 65 per cent of the consumer's dollar does not reach the producer?

Mr. Dillon.—I mean this, and the consumer pays \$1 for eggs. Now, on the average, the distribution on the average, the producer would get 35 cents out of \$1, and the distributor would get 65. It would cost 65 cents for the distribution. In this particular case that I have cited it costs from two hundred to three hundred per cent of the original cost of the eggs for the distribution.

Mr. Ward.—Well, we had a concrete example of that yesterday and I think it appeared from that demonstration that only \$408 out of a total value of \$3,000 went to pay the cost of distribution.

That included interest, storage, commissions and freight. Now, if I was stating that proposition, as I understand political economy, I should have said that it showed that less than 20 per cent of the consumer's dollar went for distribution, tracing the carload of eggs which we did yesterday. In other words, if a political economist were stating that proposition, he would have been required to say that it proved and demonstrated on that carload of eggs that only 20 per cent. of the consumer's dollar was consumed in distribution. Do you think that statement of a political economist would be wrong?

Mr. Dillon.— In that particular case that you developed yesterday you did not get to the consumer at all.

Mr. Ward.— Well, we got to Mrs. Smith, the boarding house keeper.

Mr. Dillon.— Oh, excuse me. What was the original cost; what was the final cost to the consumer?

Mr. Ward.— They cost Mrs. Miller 42 cents a dozen but they had gone into cold storage to the Decatur Produce Company of Decatur, Indiana, at 22 cents a dozen.

Mr. Dillon.— Yes, but the Decatur Produce Company did not produce them.

Mr. Ward.— Well, I take it, that Indiana fresh eggs at that period would cost 18 or 19 cents.

Mr. Dillon.— Well, so the producer got 18 cents out of the 42.

Mr. Ward.— If the producer had stored his eggs in Decatur, Indiana, he would have gotten this same market that this consumer would have paid him; it didn't make any difference to the consumer whether he bought those eggs of Ellenberger or whether Ellenberger had received them at current market prices from a producer at Decatur, Indiana.

Mr. Dillon.— Of course, you understand I assume that the cold storage facilities we have are not available to the producer.

Mr. Ward.— There are cold storage facilities to-day in almost every city of ten thousand people. We have met dozens of poultry

men who have shipped from eight to eighty cases and put them in cold storage. You will find those producers' eggs in cold storage at the right season all the way from Jacksonville to Quebec.

Mr. Dillon.— That is true, you will find it in many locations. I believe there is cold storage in every town of ten thousand people in the State.

Mr. Ward.— Well, what we want to get clear in our minds is whether the statement that we hear frequently made that only one-third of the consumer's dollar gets to the producer refers to a situation where somebody has stored and waited for a better market.

Mr. Dillon.— Not necessarily.

Mr. Ward.— Well, that would be the egg situation.

Mr. Dillon.— I have seen apples selling on the farms of this State for \$1.50 to \$2 per barrel and retailing in the market here at prices ranging from \$10 to \$20.

Mr. Ward.— What caused that and what was the situation?

Mr. Dillon.— Well, there are a good many factors that entered into it. Probably the most important is that there is no very good market developed in the city of New York for New York State apples. This market is developed for Western apples.

Mr. Ward.— Who developed it?

Mr. Dillon.— The speculators in apples.

Mr. Ward.— That is, you think they have educated the people?

Mr. Dillon.— No, they go into the West and they put up money in advance for apples in the Northwest under a contract that those apples must be shipped to them for handling and sold on a commission. In those cases they have their money invested, or rather some money invested in the apples and they have an opportunity to reach a good profit or realize a good profit out of the handling of them aside from the interest on their money, and it is for the profit in the handling of them that they put up this advance more than the interest on their money, of course. Now, their money invested in that fruit carries their interest in that fruit and their

interest is to market that Western product in this State and in this city rather than the local fruits, the State fruits, and by bringing that Western fruit in here, they have developed a market and you will find the Western apples all over the city in every little fruit stand and you will find it very difficult to find a New York State apple.

Mr. Ward.—Do we understand these Western people have helped the men who put their money in his crop by pushing their own apples by advertising, etc., and by packing and grading?

Mr. Dillon.—They have done something of that kind. They are forced to it. The people of the Northwest are unable to send a second grade apple here; they couldn't get enough to pay the expense. It costs about 60 cents a box for freight and icing and getting it down here, so they could not afford to send a second grade, a poor grade, at that.

Mr. Ward.—Well, where they are getting \$10 a barrel, wouldn't you think the second grade ought to bring \$7 or \$8?

Mr. Dillon.—Don't make any mistake that the grower in the Northwest gets \$10 a barrel. He hasn't any smoother sailing than the Eastern grower.

Mr. Ward.—Wouldn't you think the Eastern man would put some of his money into the second grade apples and sell the barrels say at \$5?

Mr. Dillon.—The speculators in apples are not particularly anxious to buy second grade. They do buy some second grade up in this State. In the better orchards, they buy the second grades.

Mr. Ward.—Well, to one not versed in the qualities of the apple, we had the general idea that the Western apple had a rather fancier dress on than the simple gown that nature clothes them with in New York State. Is there anything in that?

Mr. Dillon.—The run of the Western apples we get here does run better than ours, because we bring in not only our best apples but our seconds and sometimes thirds and fourths, and altogether the appearance is not as good as the one single grade that comes from the Northwest; it doesn't appear as well.

Mr. Ward.— Now, I don't want you to take it that these questions indicate our position. I am simply what you might call the devil's advocate for this Committee and I take the contrary side of every argument in order to bring out the views of the witness. I have to take the responsibility of being wrong all the time. Now, could any system of marketing that the State might supervise impress upon the New York consumer who is carried away by the attractive package and grade and appearance and thereby replace in this market the Wayne County apple instead of the Hood River apple? That is, could the State by a mere market, or the city, do that thing?

Mr. Dillon.— Yes, sir; I feel it could.

Mr. Ward.— In what way?

Mr. Dillon.— The Western apple is assembled by the growers and packed and crated not by the owner himself, but by men selected and qualified for that purpose — the Growers' Association. We do that in Niagara county in a few cases, but our plan in devising the Department of Foods and Markets was to go over the whole State, put four or five men into the State that were qualified for the work to organize producers into associations and to provide places through these organizations where the farmer could assemble his product and employ trained men to pack and crate the product and ship it in carload lots.

Mr. Ward.— We understood our Department of Agriculture has the forces of institute instructors and experts who we were informed were engaged more or less to the extent of their appropriation in that very work.

Mr. Dillon.— They have done nothing of this kind at all. They have a force that performs an educational function, but they do not undertake to organize and set up a regular system for the marketing of products.

Mr. Ward.— We find the Farm Bureau men organizing the dairymen and getting them in a compact body.

Mr. Dillon.— I think the head of that department was opposed to the organization and I know he has been opposed to possible

organization in the work of distribution. Some of the individuals might have done it outside. They were very active and helpful.

Mr. Ward.—Hasn't that got a connection with the State Agricultural Department, the extension work of the Agricultural Colleges?

Mr. Dillon.—I think not; I don't think there is any connection between these two. I don't know about that. My idea is that while the State has taken some steps in the direction indicated, it has not gone far enough; by going further in this same direction, some conditions can be remedied. I don't understand that the Agricultural Department ever attempted the work I am engaged in at all, with the exception of the co-operative bureau and that was discontinued. The Farm Bureau is beginning to co-operate in this work. The county agents are developing a very useful function. My idea of the way that should be done would be a sufficient appropriation for my department for me to send out men not only to instruct the farmers in the matter of marketing, but to turn in and help them organize themselves; go right in and help them.

Mr. Ward.—Of course, the cost of that must ultimately be borne by the consumer and producer.

Mr. Dillon.—Yes; yes.

Mr. Ward.—Ought it not more fairly to be borne by those directly interested in the traffic? I might not want any of those goods and yet I would have to pay my share.

Mr. Dillon.—Well, I don't know of any man, woman or child in this State who is not interested in the consumption of food.

Mr. Ward.—But here is a particular kind of food. I might have an apple range out in the Hood River and live in New York City and I might say, why should I pay to educate the man on Lexington avenue that he ought to buy New York State apples; why shouldn't I say that ought to be left to the man selling New York State apples as his individual burden? You see, as I told you before, I am the devil's advocate here.

Mr. Dillon.— Well, of course, that is all right from a very circumscribed view of the situation.

Mr. Ward.— Well, most taxpayers' view is circumscribed by their pocketbook.

Mr. Dillon.— That is a very circumscribed view. If we applied that principle to all of our affairs we would get nowhere as a community or a State.

Mr. Ward.— You mean, if a man growing New York State apples wants to get his apples into the New York market your proposition is that the State should do it for him?

Mr. Dillon.— The individual is helpless in the matter; he cannot do it alone. I will grant you that it would be very proper and a very good thing for the individual apple growers of this State to go right on and perfect this organization for themselves and bear the expense of it. They could afford to do it, but the farmer is occupied by the affairs of his farm and his mind has been running along production and the State has directed him along that line of production. It has spent very large sums to instruct and encourage the farmer on an increased production and during all that time up to the present year he has always produced what he could not sell at a profit. So growing out of that experience, we conclude that the State, while its educational work was good, had not gone far enough. The avowed purpose was to keep boys and girls on the farm by making the farm profitable by producing more and they produced so much that the farmer gets less out of a bumper crop than out of a small crop. We have an illustration of that to-day in the potato crop. Incident to this we might be able to show that oftentimes the bigger the crop, as a whole, the smaller the profit to the producer.

Mr. Ward.— Well, that is a law of political economy, as I understand it, but is answered by the proposition that the benefit to the State as a whole overcomes the detriment to any individual.

Mr. Dillon.— That generalizes it. We need food; we must have food for the consumers of the city. This is a problem that is of greater concern to the people of the city than it is to the farmer in the country, because the farmer can adjust himself to

conditions and he can get along without producing any particular line of goods unless he is getting a profit. He has the option to drop it, but the consumer must have food all the time and unless the farmer is encouraged to produce large and abundant crops, the price to the consumer is bound to be high. It is to the ultimate interest to the State that production be carried on to its utmost reasonable limit. In this city we are consuming between eight hundred million and a billion dollars' worth of food stuffs partially consumed here and up and down the coast. Of that, not more than five per cent is grown on the farms of this State. The tendency is here to discriminate against New York food products in favor of products from a distance. Farmers just outside the limits of the city are under the necessity of seeking foreign markets, going West and South in the sale of fruit, apples, peaches, pears, potatoes. I wouldn't hold that discrimination for any other purpose than following the line of greater profit for the man that is handling it; he finds it to his advantage to go into foreign production fields and get possession of the goods for distribution, for sale, either by solicitation without advance, and usually by making advance payments and sometimes by buying for speculation, and that brings those foreign products into the market in bulk and puts the man here whose personal interest is to handle them and put them on the market to develop the market for them.

Mr. Ward.— Well, now it occurred to us in looking it over that the handling and distribution of food supplies of all kinds here in New York City so as to provide a constant stream to the party that desired it was remarkably efficiently organized to bring about that result. That is, the baker knows every day just where he can get and secure a frozen egg product which just meets his requirement and which has practically the stamp of the Health Department on it. The hotel keeper knows just what man will be at his door with a certain grade of eggs or a certain brand of butter, not this week or next week, but this morning. We find in many cities of the State where you couldn't get a dozen of the required brand of eggs to save one's life. Or a tub of a certain brand of butter on certain days; but here in New York it seems that you are organized to distribute this food every day and every minute of the

day, just according to the demand, and it occurred to us that it was a remarkably efficient arrangement. How does that appeal to you, you have investigated it here. Is that a correct idea or are we wrong in our conception?

Mr. Dillon.— Yes, we have a pretty steady supply of food here of one kind or another. That comes because we have here the best market in the world, a very large market. We have a great many people to feed here and they are pretty good feeders and are willing to pay the price for a good article and the distribution system is developed to a fine art. It is developed so fine that it is very expensive.

Mr. Ward.— Well, we investigated a short time ago and found that a box of mixed grape fruit cost in St. Augustine 25 cents more than the wholesale price in New York City.

Mr. Dillon.— That very frequently happens. I can tell you about an instance. I was interested in a farm with my brother at Walden in Orange county and he was growing garden stuff — sweet corn, beans peas and all that kind, quite near the thrifty little town of Walden about two miles away. I said, why don't you take this down to Walden and sell it? He said, I cannot get enough out of it to pay for picking and carrying it down there. Then he told me, which investigation proved correct, this time of year this stuff is shipped into New York and they get over-burdened more than they can use; peddlers go there and buy it and ship it to Newburgh by boat and run it out to Walden 12 miles in a wagon and they buy it so cheap in New York that they can pay for the transportation and cartage out here and sell it in Walden cheaper than he can afford to pick it out of the farm after it is grown and take it down and sell it.

Mr. Ward.— It is said that Hood River apples are quoted in New York 50 cents a box cheaper from the wholesalers here than they are quoted at Hood River.

Mr. Dillon.— Well, we have that all over. I was out on Long Island a couple of years ago. We paid more money for the produce that we got out there right off the farm than we would have paid for the same things here in the city, the same grades of goods.

The farmer sells very little at retail. He depends on his wholesale market and it isn't worth his while, he figures, to bother with an occasional sale, so he puts on the city's prices.

When there is a surplus here in any particular product, the price is very low to the producer, but it seldom gets any lower to the consumer. There is no attempt to increase consumption when there is a surplus; there seems to be a deliberate purpose not to do it. I have seen cauliflower, cabbages, berries sell here at prices that wouldn't pay the cost of the freight and of the package on the wholesale market, and when you go to the retail markets, the price to the family is just as high, almost, as when there is a scarcity. I wouldn't say it holds out in every case, but I say it is so prevalent that it is a custom in general.

Mr. Ward.—We would like to follow that out. Two years ago we had a bumper crop of wheat, two or three years ago, and no great extra demand and wheat and flour and bread we understood went down to the consumer here in the city.

Mr. Dillon.—No, bread did not go down.

Mr. Ward.—Well, take the case of potatoes. Last year we had a plentiful crop. What did potatoes sell for to consumers here, do you remember?

Mr. Dillon.—They sold at about 75 or 80 cents a bushel.

Mr. Ward.—Now, we have this short crop in the United States, many millions of bushels, and the price has doubled to the consumer, has it not?

Mr. Dillon.—Yes.

Mr. Ward.—So that they did in a way, in that case the consumer got the advantage of the bumper crop which was produced last year.

Mr. Dillon.—Well, they got some advantage.

Mr. Ward.—And then, the rule seems to work out this way; that in temporary surpluses, where the surplus is temporary only over night, or on one day, and the surpluses do not continue long enough to affect the market, that the consumer gets no benefit from

such temporary surpluses, but where the surplus is such as to affect the national price, your consumer does get the benefit of it.

Mr. Dillon.—Oh, when you get such a situation as we have in potatoes to-day, that is so, but I had the milk situation in mind. When the milk is flush they charge just the same for it as when it is short in the winter. The price should change.

Mr. Ward.—Well, it would not make any difference to the consumer in the end, would it, if the prices were adjusted on the same average as now, if you lowered them in the summer, and raised them in the winter? Ultimately, his year's milk would cost him the same, would it not? And a great many things of that nature have a stable price average through the year. Hennery men make such contracts, and farmers make them for their butter to their customers in the town. They all try to stabilize their prices if they can. Why is it not advantageous to the milk man to stabilize his prices? As I told you, I am the devil's own advocate and oppose every argument.

Mr. Dillon.—That is all right, there is a small advantage that comes to a producer from regulating his production to meet a certain demand, but I am not discussing an individual trade of that kind, but the general market. I did say I had milk in mind at the beginning.

Mr. Ward.—Yesterday we had books of an egg dealer in here, who had been in the egg business since 1912, and we found on his books yesterday many sales of eggs in February, 1915, for 18, 19 and 20 cents a dozen, here in the city. There was a tremendous slump in the egg business at that season, occasioned by the early season Western fresh eggs coming into the market, and his books showed repeated sales of 5 cases, 2 cases, 1 case, to storekeepers, etc., up along the street, as low as 12 cents. Now, referring to your statement that the people never get the advantage of a surplus, there was apparently a surplus of eggs in 1915, and it seems that it had the advantage of that surplus, in getting candled eggs for 12 and 15 cents a dozen at the store counters.

Mr. Dillon.—Without verifying that statement, I would not want to accept it.

Mr. Ward.— I wish you would verify it, of course. We have to take their books and they may not be right. We can get them and you can check them up and see how it will bear out their argument. As I remember, they were charging 40 and 42 cents a dozen over the counters. Allen & Gerber's books show that the storekeepers were buying them for from 12 to 20 cents. Of course, we have not looked upon the storekeeper as the offender. He is in the paper nowadays, asserting that he is right, and that the robber is the middle man; but in that case, judging from these books, the wholesaler or middle man here was not to blame. It cannot be the jobber alone that stores the eggs. All Buffalo cold storage houses take Western eggs and then they send men down through the State in June and July offering to sell any of us 1,000 or 10,000 cases of eggs, and take our note in a ten per cent. payment, and let everybody in on the speculation. That is not confined to New York City. We have known farmers up the State to carry several thousand dozens of eggs through the season, and then those warehouse receipts are sold when they can get a profit on them.

Mr. Dillon.— Exactly.

Mr. Ward.— And, if the market goes wrong, you may have to sell that warehouse receipt for a cent or two the dozen less than you paid for it.

Mr. Dillon.— You would have to take a chance.

Mr. Ward.— But, that would show that the consumer, even if he paid 40 cents over the counter to the storekeeper, did get some benefit from that flush of eggs in 1915.

Mr. Dillon.— Yes, of course, there are limitations to the avarice of the merchants. The fault in the distributing system here in the city of New York is not so much due to any one man as it is to the whole system. It is all wrong, and the next man that goes into the sale of eggs, butter, cheese, apples, and practically any of those products, he has got to conform to the rules of the system or go out of business. The important rule of the system is to make the traffic pay all it will bear, to make just as little a return as possible to the producer, and charge the consumer all he can get. Some men think if you can do those things honestly so much the better,

but I think the custom has grown up in this trade so that a good many men doing it would rather make the same amount of money through trickery than in a legitimate way. The curse of the whole cold storage egg proposition in this town has been from the time that the eggs were first stored and held for consumption, that instead of putting them on the market and selling them to the people at a reasonable profit at the opening of the season, they hold them as long as they can and then try to sell them under the disguise of fresh laid eggs.

Mr. Ward.— Well, here is a suggestion about putting storage eggs on the market at the opening of the season. Mr. Ehlenberger, who was one of the witnesses yesterday, testified that he could not very well do that, because he is under contract to furnish a given amount of eggs to hotels and restaurants every day in the year; that he could not put his eggs on the market at the beginning of the season and keep in business. Then it was disclosed that Ehlenberger had a contract with another jobber to furnish him, Ehlenberger, with a certain number of cases every day in the year, so it would appear that these men could not do as you wish, and throw open their warehouses and put their eggs on the market the first of October. They have to hold them for the convenience of their trade.

Mr. Dillon.— Well, that seems all right. That is a good function.

Mr. Ward.— Still, is not every stock that is laid in, put in for the regular trade that has been created, or in the hopes of creating one?

Mr. Dillon.— Yes, I think they are, but I think we could improve that system by increasing the amount of cold storage space, and by encouraging saving that space for the larger number of small holders to put them in storage and hold them for the trade. The cold storage space has not increased so far as it should have. There are times when there is lots of cold storage space, and there are times when you cannot get a bit of space. The only way we can get increased storage space is by building more storage plants. My solution of this whole distributing problem is to provide and

equip cold storage facilities at terminal markets where goods can be assembled in this town and sold in the open.

Mr. Ward.— By the State?

Mr. Dillon.— By the State.

Mr. Ward.— Or by the city?

Mr. Dillon.— I do not care whether it is the State or city. I would have a preference for the State doing it.

Mr. Ward.— What advantage could you show to the taxpayer in St. Lawrence county if the State did it?

Mr. Dillon.— I could show him a ready market for his hay, for his milk, for his cheese, and I could show him an advance over any price that he has ever received for it before, and I could assure him an honest return.

Mr. Ward.— Regardless of the supply?

Mr. Dillon.— Regardless of the supply, yes. The men who are permitted to operate and deal in the Paris wholesale market must be men of unblemished record. Any man that has been convicted of any dishonesty or crime in connection with food or anything else would not be permitted to operate in that market at all. The Prefect of Police has the enforcement of this law and the duties of licensing and the control of men who operate, and any man that operates must be approved by the State and furnish a \$100,000 bond. This Paris law covers everybody who operates in that market. We have men operating in this market to-day who have been convicted of crime, and who have paid fines as high as \$12,000 in single instances. Other men have been sentenced to the penitentiary, and all those men are back in the business as they were before they were convicted or confessed. The men who swindled the United States Government by misbranding a large purchase of butter were suspended from the Butter and Egg Exchange, and that ended it. As a matter of fact, they are selling butter to the public institutions to-day, the same concerns under practically the same inspection. The men who were convicted of swindling the carriers by false claims of rebate, pleaded guilty in the United States

Court, and all those people are still a part of the apparatus; prominent and eminent men in the trade.

Mr. Ward.— I should hate to believe that, but you probably know better than I do. There must be a decent side of it, too, that is, of a different type of man.

Mr. Dillon.— There are square, honest fellows in the trade, but there is a system in the trade that makes it impossible for a man to stay in it and stay honest. An honest man would be imposed upon by the competition, and besides that there is a sort of interested relationship between the cold storage interests, the dealers' interest, and the banking interest that would drive him out of business. The dealers that operate in foods have connections with the cold storage concerns, and they are sometimes on the Board of Directors and stockholders in the banks.

They are able to borrow money from 80 to 100 per cent. at times, on the cost of the goods, as they put them in cold storage, from these connections. You take a man who goes into the business without those connections and undertakes to play the market on the square, and he will find it difficult to get space in the cold storage houses, and very difficult to get a loan on his goods from the bank. So that the man that makes himself unpopular through any fantastic notions of honesty and equity in his dealings is put out of business or made uncomfortable in it. The real price paid for produce never gets into the market reports. The dealers testified under oath last summer that no dealer could pay a premium on goods shipped to this market unless he was in a position to control the man that published the prices current. That has been done in this market as long as I can remember. It is not the jobber that fools the retailer; the retailer knows that the storage eggs are not fresh when he buys them. The people prefer our State eggs and State butter, but our butter is quoted less than Western butter, and that method of quoting has cost our farmers and our dairy interests in this State millions of dollars, and it is all done through that miserable quotation sheet known as Urner U-Barry quotation.

Milk dealers in this town have organized interests and almost exclusive agency for the distribution of milk; a system of house

to house delivery for what we call the better class of trade, and that system has been imposed not only on the people that are abundantly able to pay, but on people living adjacent to the same territory that would rather have it a little cheaper and would be glad to get it for less, and do not require the same refinement of service; and we have in this town, in every corner of the city, butcher shops, grocers, delicatessen stores, well equipped for handling of milk. They tell me they would be glad to distribute milk in this city for one cent a quart, to their customers. On the first of April we can pay the farmers 45 cents a hundred more than he received last year, and still deliver the milk to those butcher shops, grocers, etc., in every part of the city, for distribution to the family for 8 cents a quart. I can save the people of this city \$50,000 a day by doing the milk business, or \$18,000,000 a year. It would be better to get private capital, but if I cannot get private capital, the State should furnish me the money to do it. Of course, I could not do all the milk business, but I could do enough to keep the price down. I would have the State buy the present plants of the big companies. The milk companies here do not comply with the health laws. A monopoly would be much of an improvement on our present system, but I can do better if the State will aid me to sell milk by State competition. The State would then buy milk and sell milk, and that would regulate the price.

GEORGE HILDEBRAND, called before the Committee, testified:

I live at Milton, Ulster County, N. Y. I am Deputy Commissioner of the Department of Foods and Markets, and have been since February, 1916. Before that I was in the fruit business in this State, West Virginia, and in the West.

Mr. Ward.—We want to get on the record what your connection with those things have been. What were you doing in the fruit business?

Mr. Hildebrand.—I have been operating and managing growers' exchanges and associations, co-operative exchanges. I am 27 years old.

Mr. Ward.—How long have you been in that business?

Mr. Hildebrand.—Nine years.

Mr. Ward.— Where did you first become connected with that work?

Mr. Hildebrand.— In Minnesota. I was born and brought up in the atmosphere of co-operation.

Mr. Ward.— And, I suppose, you have been in the State colleges there to study that work?

Mr. Hildebrand.— No. I got my first experience in connection with co-operative societies when I came into New York. I had lived in the air of co-operation and farmers' exchanges, and the like of that in our State, and in Wisconsin, with fruits and vegetables. There are co-operative associations there who deal in potatoes, onions and cabbages.

Mr. Ward.— Did you observe how they were organized and worked there?

Mr. Hildebrand.— Oh, yes.

Mr. Ward.— During what period did that observation cover in years?

Mr. Hildebrand.— Well, 1910, 1912.

Mr. Ward.— What did your observation relate to; what specific society or societies; what did they call them? How were they organized, and who managed them?

Mr. Hildebrand.— Well, now understand me, that the first co-operative society that I was directly connected with was the Hudson River Fruit Exchange at Milton, or at Ulster and Orange counties.

Mr. Ward.— What we are striving to get at is some information as to how they worked out there, and I take it from your statement that you have been brought up in an atmosphere of co-operation.

Mr. Hildebrand.— You are quite right.

Mr. Ward.— And you would come in contact with the matter, we understand, so what did you see and learn about it that you could tell us?

Mr. Hildebrand.— Well, the fundamental principles, getting together.

Mr. Ward.— We know, but what did you actually see? Who organized? Where was it? What did they handle?

Mr. Hildebrand.— Well, now, this is in the general way. Is it the names?

Mr. Ward.— Yes, and how they were formed. What did they call them? What did they deal in? How did they deal? We do not know, but as you say you have been brought up in it, you can tell us so that we can get it on the record how this co-operative idea is actually worked out there.

Mr. Hildebrand.— Well, I am not able to give you the names of such organizations.

Mr. Ward.— Did you become familiar enough with any of them so that you know what work they were really doing?

Mr. Hildebrand.— Yes.

Mr. Ward.— Tell us about that one, or one of those.

Mr. Hildebrand.— Well, that again is a hard question. It is a matter of record of any organization of such a kind. To tell you specifically what they have done or accomplished is hard. That of course I have gained by experience.

Mr. Ward.— Well, we want that experience. What was your connection with co-operative societies?

Mr. Hildebrand.— I started in my home town in Southern Minnesota; bought and sold butter, eggs and poultry from my own account, as a dealer. I collected it and sold it. I lived about 25 miles south and east of Albert Lea at Lowell, Minnesota. I used to go up in the northern part of the State and buy supplies.

Mr. Ward.— Then, you were what we call a middle man.

Mr. Hildebrand.— Yes, sir. I used to sell them to collectors who shipped them East, and then I shipped to Chicago and New York. About all I know about what happened to that stuff at New York is what I have heard. I did not have any experience

with the New York end of it. I used to pick this stuff up from the farmers and paid them cash for it, and sold it to the collectors. Then I quit that and went to Rhinelander, Wisconsin, where I managed a fruit and produce commission business, and I was there until I was hired to come East and operate the newly organized Hudson River Fruit Exchange at Milton. I helped the farmers get oats wholesale. I found that we should never make a long standing contract to deliver anything for many reasons, market fluctuations being the chief reason. I am speaking about the Hudson River outfit particularly. Of course, the cannery men and sauerkraut men have got to have a long standing contract, because they have to know in advance how much the product is going to cost so that they can make sales contracts.

The co-operative idea does not cure all the natural ills that flesh is heir to. Human nature is still infirm, and it is hard to hold the fruit man to contracts.

FRED L. JELLIFFE, called before the Committee, testified:

I live in Jersey City, and am in the produce commission business at 284 Washington Street in New York City. We receive produce on commission from different parts of the country. We get a number of shipments from the Department of Foods and Markets of New York State, and from other different shippers in other States. I have been in the business since 1884. We handle all kinds of produce, live stock, cattle, sheep, etc. A large part of our business is live stock. The Western packers do not handle the great bulk of the New York State produce. There are several smaller slaughter houses who buy, but the Western packers, Swift & Co., Sulzberger, Morris & Co., go to the New York terminals and buy also. The local slaughter houses get the bulk of it. I have seen the time when the big packers would take the bulk of it, and I have seen the time when they would not buy at all. Each one has an individual buyer. They do not all pay the same prices. The price will vary between different ones on the same day, between Nelson Morris, Swift and Sulzberger. I have seen the United Dressed Beef buyer pay 10 cents a hundred more than Swift's man would.

Mr. Ward.— Don't the food trust see to it that that does not happen?

Mr. Jelliffe.— That one buyer would not pay more than the other?

Mr. Ward.— Yes.

Mr. Jelliffe.— No.

Mr. Ward.— Don't you think there is a food trust in this beef business?

Mr. Jelliffe.— No.

Mr. Ward.— Are you not connected with the Bureau of Foods and Markets?

Mr. Jelliffe.— I handle their goods; but there is no food trust with the market up there.

Mr. Ward.— Perhaps the trust is all in the selling and not in the buying?

Mr. Jelliffe.— No, there is no trust in that, either.

Mr. Ward.— You won't help me then to build up our contention. You seem to be embarrassed by the facts.

Mr. Jelliffe.— No. I handle other products besides beef products,—eggs, butter, poultry, apples, etc. I do not buy any of this stuff, but act entirely as an agent.

Mr. Ward.— How did you come to make an arrangement to act as commission merchant for the Department of Foods and Markets?

Mr. Jelliffe.— They came to us and asked us to handle their goods. We have store houses. We aim to dispose of goods as soon as possible after we get them. We try immediately to dispose of them some way. Our arrangement with the Department of Foods and Markets is that we handle all goods consigned to them at 5 per cent. commission, the same as we do for everybody else. Anything that is consigned to the Department of Foods and Markets comes right to us. We are not jobbers. We are not responsible for compliance with the branding law on cases of eggs. We do

not try to stamp "cold storage" on each egg. We handle the eggs for the Department. We have no cold storage.

MALTY B. JELLIFFE, called before the Committee, testified:

I am the son of the last witness, and in the business with him. The Department sends eggs down to us to be sold. The truckmen bring the stuff to our place. They sent a hundred cases of storage eggs, and we sold them, some for 35, some for 33, some for 31, some for 30 cents. We remit the proceeds of these sales to the Department of Foods and Markets.

I do not see how the State could maintain a market here, intending to get the highest possible price for the product sent to it, and at the same time conduct the market for the benefit of the consumer. I do not think that could be successfully done. A State department would not work here to get the lowest price for the consumer, and the highest price for the producer up the State. You cannot successfully be on both sides of that proposition. We deduct from the price of eggs we sell five per cent. commission and transportation charges. No part of that five per cent. commission is refunded to the Bureau. We sell different kinds of things for Hildebrand and Dillon; apples, potatoes, all kinds of produce. We sell those goods the same way we sell our other goods. Men come in to us to buy. We had a carload of potatoes in August or September that was consigned to the Department of Foods and Markets, from Maryland. I do not remember the price, or how much we sold them for. The Department just endorses the bill of lading over to us. Mr. Hildebrand did it. We get apples nearly every day. Yesterday there were several different lots. The largest lot came from Trumansburg,—109 barrels, I think. We sold them to different people. The buyers came around to our place looking for them. Mr. Hildebrand of the Department of Foods and Markets simply endorsed the bill of lading over to us and we got the goods from Pier 31, Lehigh Valley Railroad,—one car of 109 barrels. The bill of lading was not turned over to us until the car was ready for delivery, so that we did not know in advance from the Department of Foods and Markets that such a car was on the way. Our truckmen got delivery from the Rail-

way Company and brought them down to our sales room. I did not take part in the sales; one of our salesmen did it. I have not got the price we realized, nor the grade. We have already rendered a statement of those sales to the Department of Foods and Markets, or it will be done this afternoon. We have the blanks in our place of business, furnished us by the Department of Foods and Markets, and after we have sold the goods we make out the statement on the blank as if it was sold by the Department. Our name does not appear on the blank at all. This carload of apples came from the Lehigh Valley Pier, direct to our store, and nobody connected with the Department of Foods and Markets, so far as I know, ever saw the car of apples, or handled them. We sold these in exactly the same way we sell any other goods shipped to us, and charged the same price, and we pay no part of the commission that we charge to the State or anyone else.

I will give you a copy of the statement on this car which we sent to Hildebrand.

The following is a copy of the statement handed the Committee by Jelliffe, Wright & Company:

STATE OF NEW YORK

DEPARTMENT OF FOODS AND MARKETS

202-204 Franklin Street,

New York City

Received 12-7-16

Dept. Lot No. 2829

Auctioneer's Lot No. 1016

Account Sales of

Car

Sold for Account of Mr. C. C. Morrow

P. O. Address, Trumansburg, N. Y.

Copy of Sale which was
mailed to Department

		Sale of car L. V. 5834 containing apples and cabbage itemized on other side	
Gross Sales			423 50
DEDUCTIONS:			
Express — Freight		47 12	
Department Commission @ %			
Selling commission @ %		21 18	68 30
INSPECTION			355 20
NET RETURNS			

(Other side of statement.)

5 bbls. ungraded Russets, @	\$2.50	\$12.50
17 No. 1 Baldwins	4.00	68.00
4 No. 2 Spys	3.25	13.00
5 Folleywater	3.50	17.50
1 No. 1 Spys	3.50	3.50
1 No. 2 Folleywater		2.50
2 No. 2 Tallman Sweets	2.50	5.00
1 No. 1 Pound Sweets		3.50
1 No. 1 Pound Sweets		2.50
3 No. 1 Baldwins	4.00	12.00
1 ungraded Baldwin		2.50
1 No. 2 Spys		2.50
13 ungraded Greenings	3.25	42.25
1 Wagoners		4.00
3 No. 1 Greenings	4.00	12.00
2 No. 2 Henry Sweets	2.50	5.00
15 No. 2 Baldwins	2.75	41.25
3 No. 1 Hubbardsons	3.50	10.50
5 No. 2 Hubbardsons	2.50	12.50
2 No. 2 Henry Sweets	2.50	5.00
4 No. 2 Baldwins	2.75	11.00
1 No. 1 Baldwins	4.00	4.00
1 No. 1 Hubbardsons		3.50
3 No. 2 Hubbardsons	2.50	7.50
1 No. 2 Hubbardsons		2.50
6 ungraded Baldwins	3.00	18.00
4 No. 1 Baldwins	4.00	16.00
8 baskets apples	1.12½	9.00
38 baskets cabbage	1.25	47.50
9 barrels cabbage	3.00	27.00
		<u>423.50</u>

DISTRIBUTOR'S PROFITS

The Committee has endeavored to ascertain as nearly as may be the profits accruing to distributors in general in their business of buying milk, transporting it to the cities, and bringing it to the consumer's door. The Committee appreciated that a fair determination of these profits is of the utmost importance both to the dairyman of the State and consumers of market milk. Without an intelligent understanding of these profits and the attendant costs, difficulties are bound to arise which become of serious importance. It should be borne in mind that the handlers of market milk had in very recent years divided more or less into two classes. Until very recent years, the milk business had developed along lines peculiar to itself. The dealer who brought the bottle of milk to the door was responsible for its condition. Its condition depended entirely upon its prior handling. The milk company in the large cities which had established successful routes, in order to

retain its customers in the face of constantly increasing competition, was bound to satisfy the customer as to the quality of the milk delivered. In time, this led the large dealer with valuable distributing routes to seek to obtain the possession of the milk at the earliest possible moment from the dairymen, and handle it and keep it continuously in his possession until it was delivered in the form of bottled milk to the consumer. Scarcely any other food product is handled in a similar way.

This evident necessity led to the growth and development of the large milk distributing companies in the City of New York with their stations dotted along all the lines of railroad leading into the City within an area of three or four hundred miles, wherein milk might be found. These plants were built to comply with city health requirements, and as the practice of pasteurization developed, the milk company rendering service to the consumer, established central pasteurizing plants either in the city or suitable country districts, by means of which they sought to ensure themselves of a constant daily supply of the product required by their trade, which would be sure to pass the inspection rules of the Department of Health. It suggests itself to this Committee from the evidence received by it that during the years 1914, 1915 and 1916, it became difficult for these companies to secure an adequate supply at all times for their purposes at the prevailing prices. They felt that production could not be encouraged by an increase in the price paid to the dairyman, as has been before suggested. An increased price would mean trouble with the boards of aldermen in Buffalo and New York, for instance, trouble for them in the public press, and a bitter feeling on the part of the consumer. Therefore, it appeared to them that the solution of their difficulties lay in the extension of the field where they could gather milk at the prevailing price, and a careful searching out of the nooks and corners which were unprovided with convenient shipping facilities by which means they might add to their supply. This situation developed a new factor in the market milk trade, to wit; the jobber or middleman, and it is suggested by the evidence before the Committee that some of the agencies created by the State of New York, encouraged and really

created in the City of New York a new sort of middleman in the milk trade who at once became a burden upon the business and proceeded to collect pay both from the producer and consumer. In places and at times he temporarily increased the prices, to a very small extent, received by the dairymen in certain small sections, but of course bringing no permanent relief to the dairy situation. This jobber or middleman rendered no service of any kind to the consumer. He assumed no responsibilities; he had no capital invested. As is the middleman's uniform practice, he simply by rapid action availed himself of the capital of the producer and the necessities of the consumer and distributor. Mr. Van San, whose evidence is hereafter referred to, is a fair type of this sort of middleman, taking a profit wherever he found it with little responsibility to the actual interests either of the producer or the consumer. These middlemen or jobbers in an era of scarcity found at once a profitable field of activity. From time to time the distributors were in great need of small additional supplies of milk for their customers. The middleman having under his control such small supplies and trading upon the necessities of these dealers, who rendered service to the consumer and had capital invested, was able to secure from them for a temporary supply a price which the selling price of the entire product, as shown by the auditor's report, would not permit.

It must be borne in mind that these jobbers were unconcerned as to what would happen the consumer on any to-morrow or any subsequent month. He had no dealings with the consumer; he had no good-will or trade name to protect; he had no capital invested, and the simple situation was that if there was a dearth or shortage in the supply in a subsequent month it did not concern him at all; his only problem being to make a nimble profit on the current amount under his control. A mere statement of the case indicates that the growth and development of middlemen of this sort in any business is undesirable and an evil from the standpoint of the producer, distributor or the consumer. Their practices afford no aid to any reasonable solution of the trade difficulties. They simply amount to a new group of men declaring themselves "in" on the traffic, who ultimately became an unnecessary burden to the producer and consumer.

That in the past large profits have sometimes been made in the matter of distributing market milk is undeniable. Also there have been large losses. Its history appears to be similar to other lines of business. The Committee has exact figures for the year ending June 30, 1916, only.

The amount of those profits for that year are best shown by the exhibits hereinafter set out. They need no comment from this Committee. Every person who takes the trouble to study them is capable of reaching a conclusion as to what they may indicate as to the future cost of dairy products to people of this State as well as the Committee. We seem unquestionably to have reached a period when the dairyman is going to demand and receive higher prices for dairy products. Such products, although vitally necessary to the sustenance of the people, seem to have been produced in the past with great ease and almost as freely as bounteous nature could provide without being charged with a large labor cost. But labor has become an item of great value. One is prohibited by law practically from referring to it as a commodity, but to-day it is assured of a market, and the dairyman's wife and family engaged in the work of producing dairy products now begin to speak of compensation and a labor return for their time, which, in years gone by, we believe to have been a factor practically ignored. If labor cost accountings of the farm owner as superintendent, of the farm wife as an employee, and of the grown children as industrial wage-earners, are, for the future to be taken account of and added to the cost of this product, it seems to be at once evident that market milk, butter, and cheese at once become clothed with elements of value which have not heretofore been considered. In that event, the milk distributor at the country station instead of assuming that he had left on hand from the sale price a certain amount of money for the dairyman which he tenders him for his milk and which he obediently accepts, must first go to the country station, ascertain the costs of production, the required profit to encourage and continue production by those connected with the industry, and beginning with that figure ascertain his own labor costs and capital earnings and base the price to the consumer on those factors. If these products of the soil are to be treated in this fashion, it

strongly suggests itself that for the future higher prices must necessarily prevail to the consumer for dairy products.

The evidence before us suggests that the era of cheap production of Western butter and cheese has nearly closed. On the large stock and grain farms of the West, milk and consequently butter and cheese were produced substantially as a by-product, handled and disposed of as such without the necessity of close attention to the cost factors involved. From those Western states have largely come in current years the supply of butter and cheese, the production of which has fallen comparatively low in this State with the great increase in the demand for market milk. That the labor conditions now prevailing in the East must ultimately affect those farming States seems clear. When that situation is fully developed, butter and cheese prices will approach the present prevailing prices in New York for market milk. Take February, 1917, for example, 100 pounds of market milk testing 4 per cent., costs \$2.35. This would scarcely make five pounds of butter, which would make the cost of that product 47 cents per pound at the creamery before costs of manufacture were added. There seems to be little escape from the conclusion therefore, unless dairymen are ready to concede that the price of milk is to be reduced, that a general increase in the cost to the consumer of all kinds of dairy products lies in the immediate future. Any ultimate decrease in the cost of these products depends, so far as can be seen, largely upon two possible steps aside from a general lowering of the wage scale or the demand for labor.

First, a large increase in production, which is the only sure and sufficient way to lower the price. A farm run to its full dairy capacity should produce a larger amount at a less cost than one run at four-fifths its capacity; so that by encouraging larger production and an abundant supply there is a natural tendency to reduce the price.

Second, by eliminating unnecessary services or wastes in the distribution. This can only be done by providing laws which will aid in every way the economic distribution of milk and other dairy products. This will necessitate eliminating the necessity

for all jobbers and unnecessary intruders upon the traffic of all kinds.

Every milk dealer and distributing company throughout the State to whom the Committee has applied has turned over to the Committee all the records and accounts of their business without hindrance. The interests of the State in this question and erroneous ideas existing and proclaimed require that the result of the studies of their books and accounts should be given to the public. It became necessary to place those books and records and the investigations to be made therefrom in the hands of competent accountants. The Committee sought for this work a certified accountant who should be free from prejudice, competent to make the studies involved, and free from alliances or connected with this industry in any way.

In order to secure such result, the Committee took the matter up with the Dairy Division of the United States Department of Agriculture, which Department is shown by its work to be greatly interested in these questions. After considerable discussion, W. H. Kerr, Esq., Assistant Chief of the Bureau of Markets of the United States Department of Agriculture, recommended to the Committee the employment for this work of Mr. Herbert B. Hawkins, certified accountant, of 198 Broadway, New York, who had supplied certain work for the use of the Department in the way of cost systems. In examining into Mr. Hawkins' work, the Committee ascertained that he had had experience both as an office and business manager and as a public practitioner in accounting work; that he had been and was engaged in actuarial work, and in constructing and installing functional cost systems with the Bureau of Municipal Investigations and Statistics of New York City. The Committee secured the services of Mr. Hawkins, and the investigation and studies of the books of the large milk distributors in New York City was undertaken and continued from early in the month of August, 1916, practically until this date. The results of those studies are shown in the accompanying reports. The Committee can say no more as to these reports except to state that the Committee believes them to be entirely honest, unprejudiced and reliable. The larger companies have publicly announced that they welcome the checking of

their books by any other competent and approved accountants. Therefore, we take it, that these reports must be accepted as embodying the truth. Doubtless many persons will be surprised at the narrow margin of profits accruing from the distribution of market milk, as revealed by these reports.

As a preliminary and as affording a basis of comparison to the business of distributing market milk in the city of New York, it may be well to bear in mind that there are other cities in the State of New York demanding and receiving large supplies of market milk which is distributed by companies having large capital investment and doing a large business. Some of these companies are highly successful. Some are making a strong bid for success and operating for the time at very low margin of profits; some have been found who are actually in financial difficulties, but in order that it may be understood that the business outside of New York City is not entirely gloomy in aspect, we present for comparative purposes the balance sheet of one company engaged in the business of distributing milk in the city of Rochester. This company is known as the Big Elm Dairy Company of Rochester and has a capital stock of \$60,000.

JANUARY BALANCE SHEET

Gross sales.	\$27,794 79	
Discounts and allowances	726 46	
		\$27,068 33
Inventory, 1st of month	\$2,278 81	
Purchases.	17,507 02	
Total.	\$19,785 83	
Less present inventory	1,933 00	
Balance.		17,852 83
Trading profit		\$9,215 50
Expense:		
Miscellaneous expense	\$564 52	
Light, heat and power	328 47	
Blacksmith shop	177 88	
Bottles and caps.	2,748 00	
Fuel and bedding	458 87	
Dairy supplies		
Barn expense	137 75	
Advertising	229 31	
Office supplies	111 06	
Harness repairs	29 55	
Insurance	38 33	
Repairs and replacements	54 81	
Telephone and telegraph	31 67	

Miscellaneous expense	221 96	
Freight	2,676 00	
Donations	6 50	
Interest.		
Cartage	102 03	
Horse shoeing	27 00	
Labor, dairy	894 78	
Labor, distribution	2,470 00	
Labor, foreman	346 02	
Commissions	121 41	
Soliciting	86 67	
Office help	652 92	
Manager's salary	400 00	
Depreciation on bottles.....	350 00	
General depreciation	463 07	
Total expense		8,729 22
Balance net		\$486 28
Miscellaneous income		33 50
Net profit		\$519 78

NOTE.—There is probably error in the minutes as to the figures of the various items of expense included in the above schedule, but the balance net for the month of over \$500 was correctly given.

The same balance sheet for the month of July, 1916, showed net income from operation \$2,680.24.

Thus, we see in this very prosperous company a net profit of \$500 for the month of January, as compared with the net profit of \$2,680.24 for the month of July, 1916. An average of the January profits with the July profits for similar months throughout the year shows a very handsome profit by this Company upon the capital stock. This is an old established company which has undoubtedly accumulated a surplus, the amount of which and the resulting total invested capital is not set down in the stenographer's minutes, and therefore it is not assumed to be given, but net earnings of nearly one per cent. in the month of January and of over four per cent. in the month of July upon the capital stock evidently enable it to pay to its stockholders abundant dividends. However, the financial statement of this company cannot at all be said to be typical of the great majority of companies engaged in the milk distributing business in up-state cities. The earnings upon the capital stock in most of the companies examined are much more modest. The books examined of two or more of them in large up-state cities showed great difficulties encountered in

building up a substantial capital and reserve fund to maintain the business.

The accountant's report on the New York City's industries is largely confined to the following companies: The Borden's Condensed Milk Company, Farm Products Division; Sheffield Farms Slawson-Decker Company; Alex. Campbell Milk Company; Clover Farms, Inc.; Mutual McDermott Dairy Corporation. In the first four mentioned, the accountant in the time allowed, with his assistants, was able to complete the full audit of the books. They were selected by the accountant, not at all with the idea of giving to the public the records of certain companies and not all of them, but with the purpose of getting four type companies whose records would aid in the solution of the question of cost distribution and net profits. This question is of sufficient importance so that these records should unhesitatingly be disclosed in this report to the end that a complete understanding of the problems involved may be afforded to all those interested in the matter, and to the public. We preface the accountant's report on the analysis of the Borden Company's books by a statement made in connection therewith by the Borden Company to the Committee under date of November 25, 1916:

BORDEN'S CONDENSED MILK CO.

EXECUTIVE OFFICES

108 Hudson Street

NEW YORK CITY, November 25, 1916.

Hon. CHARLES W. WICKS, *Chairman, Joint Legislative Committee on Dairy Products, Live Stock and Poultry, Murray Hill Hotel, New York City:*

Sir.—We realize how desirous your Committee is to have the real facts of the milk business and how unfortunate it would be for both yourselves and ourselves, as well as the industry in general, should any of your final conclusions be based on other than the real facts.

Except for your general study of the situation and testimony given, you are, we presume, largely dependent upon the report of the State's accountant, Mr. H. B. Hawkins, for guiding information. His report in so far as it affects us is, of course, based very largely on a study of the books and records of this Company. It is hardly necessary to say that the text of the report is unknown to us.

At the risk of acquainting you with facts that you have probably already learned from Mr. Hawkins, we would call your attention to the comparative costs of Grade "A" and Grade "B" as shown by our records.

In so far as a reading of our cost sheets goes it might appear that there is practically no difference in cost of Grade "A" and Grade "B" milk.

There has been no special reason why this product should be shown separately.

The product itself is young and the volume of sales has been comparatively small.

Much detail would be involved in order to provide a proper distribution of expense so that the direct cost of the product and the cost of its distribution could be obtained.

Considerable expense would be incurred in establishing a separate accounting for Grade "A" product.

There are factors entering into the cost of Grade "A" which as a matter of course make it a more expensive product than other fluid milk, certified excepted, and this fact is apparent without the necessity of a separate accounting.

The arrangement of our accounts is not made because there is any fixed procedure or general law to be followed, but solely for the convenience of those who manage and guide the business, and the fact that all possible combinations of results are not portrayed in the accounts cannot be considered an impropriety.

As proof that there is a very great difference in the costs of the two products we call your attention to the following expense items which are directly chargeable to Grade "A." All of these are tangible differences, viz:

Premiums paid for raw milk qualifying for Grade "A" Milk uses, applied to Grade "A" sales.....	.01333 per qt.
Exclusively Grade "A" Covers, Seals and Extra Labor in Sealing .....	.00235 per qt.
Average Grade "A" greater freight.....	.00127 per qt.
Total	<u>.01695</u>

In addition to the foregoing there are various items of expense which, while we know they exist and are caused by the Grade "A" product, nevertheless, we cannot express the additional cost in figures. We enumerate:

1. The Department of Health does not permit a country plant to receive Grade "A" milk and Grade "B" milk at the same time, thereby adding considerable to the cost of handling.
2. The Department of Health does not permit Grade "A" milk and Grade "B" milk to be kept in the same room at the same time, thereby causing extra expense in handling.
3. The Department of Health does not permit the Company to use the same equipment for Grade "A" milk and Grade "B" milk. Therefore, to install the additional equipment to handle Grade "A" milk has greatly added to our investment.

Argument may be made that if all of these charges had gone against Grade "A" that other products would have been correspondingly relieved. This is quite true. It would not have changed the average profit per quart, however, since all of these charges were included in arriving at the results though spread over the various products of the Farm Products Division.

The question might be raised as to why we purchased milk qualifying for the Grade "A" product so largely in excess of Grade "A" sales requirements. By

so doing we followed our policy of encouraging high standards of production.

To have done otherwise would have been discouraging to the producer, who, without previous notice to the contrary, took on the expense incident to the production of raw milk qualifying for the Grade "A" product, believing that the market existed for his quality product.

Further, the production of premium milk has been so generally taken up by producers that it has far outstripped Grade "A" sales requirement, and much of it goes to improve the Grade "B" average. In fact, milk qualifying for Grade "A" uses is such a large portion of the production that its elimination would not only discourage quality production, but would bring about a serious shortage and cause the closing of some plants altogether.

By following the policy that we did in this matter, both producer and consumer benefitted. We were the only losers.

If the sending of this letter has had the effect of clarifying this matter, thereby avoiding misunderstanding, we know that because of your adopted standards its receipt will be welcomed.

Yours very truly,

BORDEN'S CONDENSED MILK CO.,
FARM PRODUCTS DIVISION,
(Signed) H. N. HALLOCK,
Vice-President.

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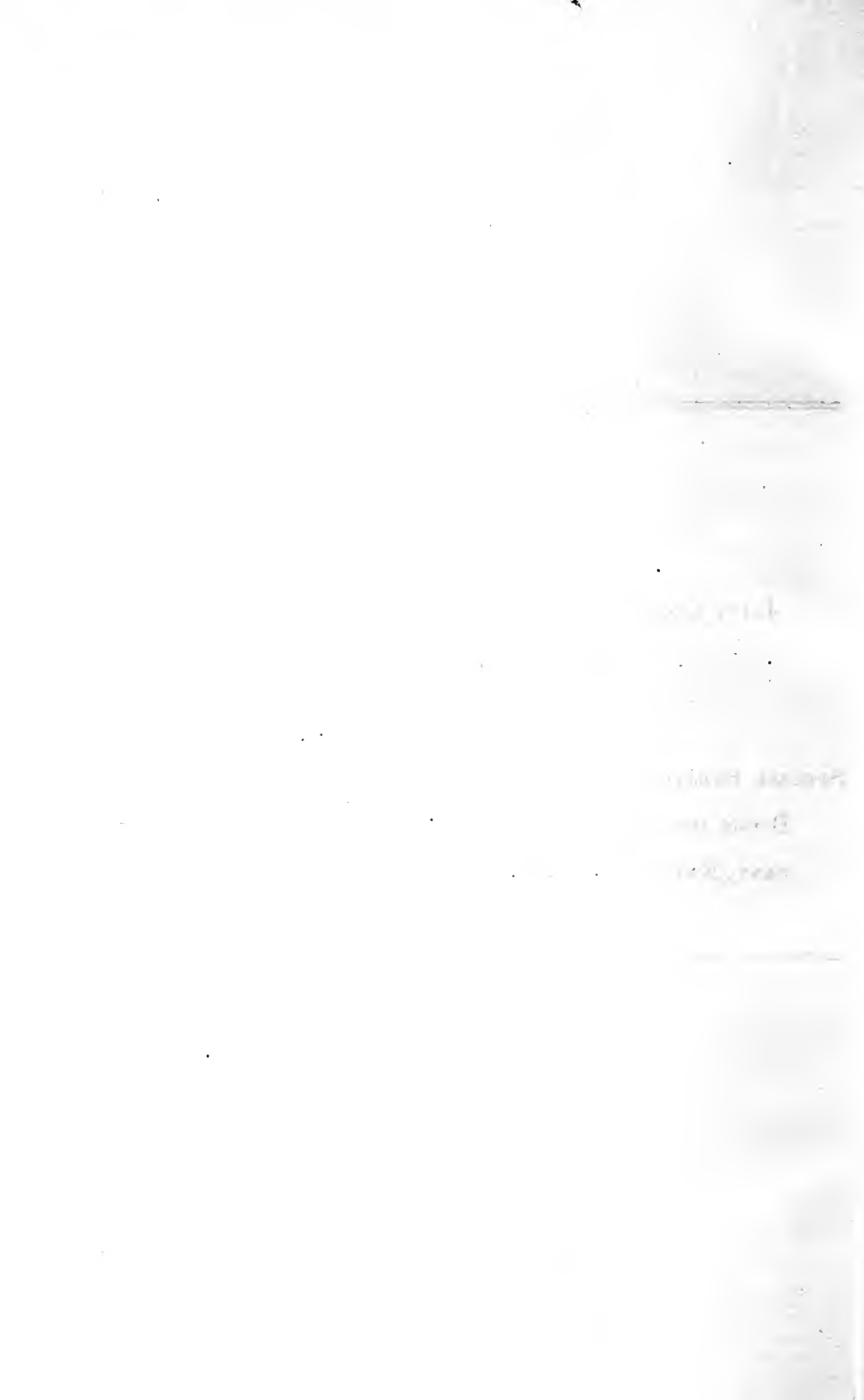
REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,
LIVE STOCK AND POULTRY

ON

SPECIAL SUBJECTS IN CONNECTION WITH THE EXAMINATION OF
BOOKS OF ACCOUNT OF BORDEN'S CONDENSED MILK COM-
PANY, NEW YORK, N. Y.



SPECIAL REPORT IN CONNECTION WITH AND FORM-
ING A PART OF REPORT ON COSTS OF BORDEN'S
CONDENSED MILK COMPANY.

November 25, 1916.

*Joint Legislative Committee on Dairy Products, Live Stock and
Poultry:*

Gentlemen.—The Borden Condensed Milk Company is a corporation with issued and outstanding capital stock of \$28,810,200, of which \$7,500,000 is preferred and \$21,310,200 is common stock. The company conducts a general business in the purchase of raw milk, and the manufacturing and distributing of same through its various departments in the form of preserved milk, evaporated milk, malted milk, dry milk, and what are known as route products, distributed by the Farm Products Division, which division, particularly, is the basis of this report. In general, the Farm Products Division does about fifty per cent. of the business of the entire company on a gross sale basis, while the profits of this division are about twenty-five per cent. of the total profits of the company.

This organization operates a complete cost system for every department. The distribution of expenses over various costs are made on a true functional cost basis, so that the cost of each function entering into the cost of each product at each factory or branch is determined. In contrast to a company operating without a system of this kind, permit me to say that in none of their records would it be found possible to analyze specific classes of expenses incurred for each department of their organization. On the contrary, any one class of expense might be distributed to one or many of the various functions that are performed in the production or distribution of any product at any or all factories or branches, without regard to the total of that one expense, for any one or all factories or branches. It is evident, therefore, at the outset, that a comparison on an expense classification basis of the operations of this company with other companies, reports of which you have

or will receive, is impossible without a complete re-analysis of all expenses on a different basis than is here used. However, the major functions of the company are herein subdivided as in other companies, and it is interesting to note that the unit profit on a quart of milk purchased, is approximately the same.

The voluminous detail contained in a large organization such as this, prohibits a detailed checking of the correctness of all items entering into costs. In this case, however, innumerable tests were made of vouchers and the proper distribution of general selling and administrative expenses, and where possible, opening and closing inventories were examined. In connection with the vouchers examined, very few, if any, call for more than passing mention, and in connection with these, permit me to note as follows:

Invoice No. 308191 for \$86.00 in favor of the Farm Products Division, consists of a \$50 subscription to Broad Street Hospital, and a \$25 membership fee in the International Milk Dealers' Association.

Invoices as follows:

To the North Public Health Bureau for examination and laboratory tests:

Invoice 276067	\$655 00
Invoice 282186	1,500 00
(The above invoice of \$1,500 is a bill for an account without details.)	
Invoice 296390	590 00

Invoice No. 252490. Memorandum order to pay W. B. Richards, \$100.00 in connection with opposing legislation antagonistic to efficiency in American industry.

Treasurer's vouchers:

Check to the order of Empire State Dairy Company, \$350.00 to pay for pro-rata share of expenses involved in securing an exemption from Industrial Commission under the so-called "one-day-of-rest-in-seven law".

Check to the order of Thomas M. Rowlette, Mechanics' Metal National Bank, June 12, 1916, for \$6,688.62, in payment of services and expenses in conducting various actions of which the case of Alexander vs. Borden is one, and the expenses of this case, amounting to \$95.60 were spent as follows:

Subpoena for Officer Close.....	\$3 00
Subpoena for Officer McGrath.....	3 00
Subpoena for Officer Fitzgerald.....	3 00
Subpoena for Officer Kurneist.....	3 00
Luncheon, four policemen	4 00
Paid Officer McGrath	25 00
Paid Officer Kurneist	20 00
Paid Officer Close	10 00
Sundries.	24 60

Total.	<u>\$95 60</u>
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Check to the order of Masten and Nichols, Attorneys to the Company, for \$3,000.00 in connection with the engagement by Mr. Beverly R. Robinson of the above firm, of Mr. Speer in reference to renewing the engagement of Mr. Speer, the services of Mr. Speer being in connection with legislative matters.

Voucher No. 121043 in favor of G. P. Washburn (an employee of the Borden Condensed Milk Company) shows expenditure of \$1.60 for luncheon with Mr. Lee of Board of Health.

Voucher No. 124945 in favor of G. L. Hotchkin shows expenditure of \$14.10 for driving Health Inspector among "our" dairies 84 miles at 15 cents a mile (\$12.60) and two meals and lodging at Bridgeport (\$1.50) for the purpose of securing Grade "A" dairies.

If there is any information that the Committee wishes in connection with this examination and which can be obtained from the working papers used in making same, I will be very glad to make additional reports on any subject in which the Committee may be further interested.

Very truly yours,

HERBERT B. HAWKINS,
Certified Public Accountant.

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REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,
LIVE STOCK AND POULTRY

ON

OPERATING, MANUFACTURING AND DELIVERY COSTS OF MILK.
BORDEN'S CONDENSED MILK COMPANY (FARM PRODUCTS
DIVISION), 108 HUDSON STREET, NEW YORK, N. Y.

James L. ...

James L. ...

James L. ...

James L. ...

OPERATING, MANUFACTURING AND DELIVERY COSTS OF MILK

Joint Legislative Committee on Dairy Products, Live Stock and Poultry:

Gentlemen.—Agreeable to your request, I have made an examination of the books of account of the Borden Condensed Milk Company, 108 Hudson street, New York city, with special reference to operating, manufacturing and distributing costs of fluid milk by the Farm Products Division of company for the period of July 1, 1915, to June 30, 1916, and I am attaching hereto remarks in connection with various exhibits and schedules supporting the same. I am also handing you herewith, under separate cover, a general report of this examination which is to be considered and is a part of all papers attached hereto.

I want to take this opportunity of thanking the officials of the Borden Condensed Milk Company with whom I came in contact, for their complete willingness in extending to me every possible facility in conducting this examination.

Very truly yours,

HERBERT B. HAWKINS,
Certified Public Accountant.

EXHIBITS NOS. 1 AND 2 AND STATEMENT "A" OF EXHIBIT No. 1

Attached hereto is a reconstructed statement of the unit profit on the total quantity of milk purchased and sold by the Farm Products Division through their Eastern branches, either as fluid milk, cream, butter or other products. This statement is reconstructed on the basis that \$66,426.12 was an overcharge for quart bottles charged to cost of the operations of the Eastern branch of the Farm Products Division as per Statement "A" supporting this exhibit.

Exhibit No. 2 is the statement of unit profits published by this company and herein supported by quantity figures, all of which is as per their books. In making tests of the correctness of costs,

it was learned, in connection with the overcharge for quart bottles, that from July 1, 1911, to June 1, 1915, no complete satisfactory control of bottles *used and broken* was obtainable. The records showed that on that date, and monthly thereafter, inventories were obtained of bottles on hand. At the beginning of the fiscal year, or July 1, 1915—one month subsequent to the period above mentioned—the books recorded on hand 3,988,091 quart bottles, whereas the inventory taken showed but 2,242,998 quart bottles or a net shortage of 1,745,093 bottles. Instead of adjusting the books to show the actual quantity of bottles on hand by charging the loss to surplus, the monthly depreciation on quart bottles was increased to a rate that, on June 30, 1916, this shortage, amounting to 1,745,093, of previous years, had not only been charged to the cost of operating for the fiscal year 1915-1916 but in addition, 529,852 quart bottles over and above the number of bottles shown to have been broken, as per the inventory on the books, were charged to operating costs. This statement is shown for the Eastern branches only. It will be noted by referring to Statement "A" of Exhibit No. 1 that the western branches will also show quart bottles to the value of \$9,000 to have been overcharged to operating costs for this period.

It will be noted by comparing the reconstructed statement of costs in Exhibit No. 1 with the original statement in Exhibit No. 2, that the factory expenses are reduced by the value of the bottles, which in turn reduced the unit cost of factory expenses .000304 per quart or increased the profit from .002611 to .002915. It must be assumed that the increased depreciation charge for bottles was determined, having in mind that insufficient charges were made previous years, but the stand as taken here, without qualification that to hold on the books losses of prior periods and charge same into costs of a single subsequent period, is incorrect.

It must further be noted that a correct inventory of bottles is next to impossible to determine, but it must be assumed also that at the beginning and ending of this fiscal period the same means were used in determining those figures.

EXHIBITS NOS. 3 AND 3-A

The statement attached hereto showing a summary of production costs at Eastern and Western route factories for the fiscal year 1915 -1916, is interesting for comparative purposes in connection with the statement of costs shown in Exhibits Nos. 5 and 6 (two of the special pasteurizing plants of this company). It will be noted in examining the costs of fluid pasteurized milk that no distinction is made between pasteurized Grade "A" and Grade "B" milk. It will also be noted that the unit costs for producing a quart bottle of fluid milk at country stations is considerably less than the cost of producing this same article at either of the large pasteurizing plants. It must be taken into consideration, however, that the two pasteurizing plants shown herewith show a larger unit cost than the average unit cost of pasteurized Grade "A" and Grade "B" milk shown in Exhibit No. 8, which includes a summary cost of all Grade "A" and Grade "B" milk sold. The incorrectness of the distribution of these costs in connection with quart bottles of pasteurized milk is evidenced by the fact that no charge is made to the Grade "A" milk for the increased cost of handling nor for the additional cost of the special cap which is used on a Grade "A" bottle. It will also be noted further on, that no distinction is made in distributing costs for milk sold as wholesale or retail, and this is all the more emphasized by the fact that charges to branch stations where a wholesale business is principally done, are made at the same rate as charges where a retail business is principally done, so that stations conducting a wholesale business invariably show a large loss, all of which can be verified by additional exhibits and schedules, if they are required. It will be noted in this (Exhibit No. 3) that there is a considerable amount of detail gone into to determine costs, and if, in some cases, the results are not justified by the actual conditions, it must be said that great credit is due this company for being probably a pioneer as far as the writer knows in constructing cost accounts for milk companies on a scale such as is done herein.

It will be noted that the cost of plant production varies considerably at the different times of the year, all of which is set forth herein, and it will also be noted that the cost of production in the West is somewhat lower than the cost of production in the East, all periods of the year considered.

EXHIBIT No. 4

This exhibit is a summary of the costs shown in the ten schedules supporting this statement. It will be noted from the summary cost of production in Exhibit No. 3 that these ten factories represent a fair average cost at country stations of producing milk and cream as shown on the finished stock record Exhibit No. 3 notwithstanding the fact that there are variances in the individual factories set up herein. In making tests of the accuracy of these costs, pay-roll vouchers were examined for certain months and the proper distribution of several of these factories of route sales overhead was determined and in every case so examined it was impossible to take exception to the correctness of same, with the exception, as stated heretofore, in connection with the depreciation of bottles. The costs of the various functions shown in this exhibit, and the schedules supporting same are distributed, first to each factory, all direct charges, and second, the overhead charges are made to each factory in the proportion that the pounds of milk used in a factory bears to the total pounds of milk used in all factories each month. Third, these charges (1) and (2) are again distributed on the basis of pounds milk used in each product and on the basis of applied labor charges of each function in producing each product.

It is interesting to note, as aforesaid, the great variance in the unit cost of milk at different seasons of the year, and permit me to say that if a summary is made of the various reports which I will have submitted to you in connection with the examination of milk companies for this Committee, particular note will be made in reference to the fairness of a high or a low charge for milk to the consumer in proportion to the flush of the season. I would also call your attention to the net high or low unit cost between each of these factories, the same representing principally a greater or lower efficiency in operation, or an average lower or higher grade of milk purchased.

EXHIBITS NOS. 5 AND 6

The costs in connection with operating the large pasteurizing plants of this company are interesting to the end that there is apparently a greater increased cost in their operation than seems to be at country pasteurizing stations. This is due, somewhat to

the fact that the milk on leaving the country station for the city pasteurizing plant carries with it a burden of labor in handling at the country station. The question naturally arises at this point whether the larger city pasteurizing plants are as economical as the country plants and it is recommended herewith *that the Committee examine witnesses so that the broadest and fullest information may be obtainable on this point.* There is no end of the comparative information that is obtainable from the statements submitted herewith, and as stated heretofore, if there is any particular phase of the cost of production of milk that this Committee would like to have, I will be glad to submit other statements supporting same.

EXHIBIT No. 7

This statement is an analysis of the sales of various products of the Eastern branch of the Farm Products Division, and includes two recent extensions at Hartford, Conn., and Buffalo, N. Y. The losses incurred at the aforesaid mentioned stations have not been transferred to the profit and loss statement (Exhibit No. 16) but have been charged to a reserve for losses on route extensions. Neither does this statement include an adjustment to the credit of the Farm Products Division, Eastern Branches, of \$13,721.87 as recommended by the executive committee of this company before closing the books for the fiscal year. The net per cent. of profit of 3.75 per cent. is somewhat in excess of the net per cent. of profit shown on Exhibits Nos. 1 and 2, due principally to the fact, in addition to the aforesaid qualifications, that losses on factory sales are not included herewith. The percentage of delivery costs to total expenses of 22.42 per cent. is further analyzed as between general expenses, stable and selling expenses, etc., herein. It is interesting to note in connection with this statement that in the distribution of costs there is a loss on cream between 2 per cent. and 5 per cent. and a disproportionate gain on pasteurized Grade "A" milk of 9 per cent. due to improper distribution of costs as stated aforesaid in connection with producing this product.

EXHIBIT NO. 8 AND SCHEDULES 1 TO 6 INCLUSIVE

In view of the fact that a proportionate distribution of expenses is distributed to each product sold by this company in constructing its cost accounts, it has been thought that it would be interesting to show the actual profits on various kinds of fluid milk distributed, and also the unit profit on all fluid milk distributed. It will be noted that a detailed analysis in connection with the cost of product and general expenses shows on a quart of milk, actually delivered to the consumer, a profit of .003217 or a percentage of profit on sales of 3.5 per cent. This is of course, as aforesaid, on the actual quart of milk sold, and a proportionate distribution of expenses to each product on a point basis. The supporting schedules herewith show that at stations which have not been thoroughly organized, or where perhaps there is a larger territory to cover, or where, perhaps, there is keener competition in the territory, *there is a proportionate loss on the sales*. It also shows that at stations where there is a large volume of business, there is a profit in some cases of over a half cent a quart on every quart of milk sold. It must be stated that a profit of over a half cent is, however, the exception rather than the rule, and in cases where this is shown, the reasons are very apparent. On the contrary these same profits are not apparent at branches where milk is sold principally at wholesale, and it is recommended to the Committee that some very valuable information might be obtained by the testimony of those familiar with the actual reasons for such conditions, other than the fact that there is an erroneous distribution of cost. The deductions from total sales represent a charge of one-fourth of one per cent. for bad debts on sales which it is fair to say at this time has been found insufficient, the rate having recently been increased to \$2.60 per thousand of sales, and also for refunds and discounts.

It is recommended to the Committee that a study of these statements will reveal information that will prove instructive and interesting, as they have been prepared at a very great expense of overtime study.

EXHIBIT NO. 9

The statement herewith shows the same figures as in Exhibit No. 7 except that the results obtained herein are for the Western branches. The profit is apparently not as great, due to the fact

that the route overhead expenses are somewhat higher in this territory than in the Eastern territory.

EXHIBIT No. 10

The statement herewith shows the same information for the Western branches as Exhibit No. 8 does for the Eastern branches.

It will be noted, particularly, in connection with the Western branches that there is *no grading of milk between "A" and "B" as exists in the East*. It will also be noticed that there is a greater percentage of profit on products in this territory, other than fluid milk.

EXHIBIT No. 11

The depreciation charges of the various factories, pasteurizing plants and branches will be noted to be reasonable and conservative. The valuation of these plants is accepted on appraisal by a representative appraisal company and the depreciation charge is based on said appraisal. Absolutely no exception can possibly be taken to this procedure and the charges and cost of same must be considered fair.

EXHIBITS Nos. 12 AND 13

No better statement could be prepared to show the expenses of conducting a milk business than is shown herewith in connection with waste at pasteurizing plants and at country factories.

It will be noted that the waste in country factories is considerably lower than in city pasteurizing plants, which perhaps accounts for the increased cost of production in the latter. Considerable study could be given to the accuracy of some of these higher percentages of waste, and it is recommended here that your Committee examine witnesses who are familiar with this particular feature of the milk business. In particular I would call to your notice the waste on No. 1 cream and route cream at the Long Island City pasteurizing plant which may be accounted for in the transfer to fluid.

EXHIBIT No. 14

The profit and loss statement of the Borden Condensed Milk Company attached hereto shows a net income for the year of \$3,002,432.43, and as stated in the report of this examination, approximately *seventy-five per cent. of it is made on fifty per cent.*

of the sales of condensed, malted, evaporated milk and sundries, with the exception of route products. It must be said at this time that the administrative charges to all divisions are made on the basis of gross sales, so that notwithstanding the fact that the route division makes but one-fourth of the profit of the company, it is charged with half of the administrative expenses. While the charges to surplus for reserves of \$1,129,339.85 are not a charge to costs, it is well to state that \$1,000,000 of this amount is for reserves on obsolete plants of the company. No verification of the value of obsolete plants has been obtained, but in an analysis of the plant and structure accounts, the only factories listed as obsolete consisted of buildings and machinery at Brewster, Wassaic, Granville and Middletown showing a total valuation of approximately \$381,402.86.

EXHIBIT No. 15

The balance sheet herein shown as at July 1, 1916, for the Borden's Condensed Milk Company, all departments, excluding affiliated companies, is simply shown for whatever general information may be contained therein.

EXHIBIT No. 16

The profit and loss statement shown herein reflects the net profit of the Farm Products Division, both East and West branches, including factory sales, and is supported in detail in the schedules aforesaid.

SCHEDULE "B"

As per your instructions the names of route factory managers and route sales managers in general and also at individual factories and branches are attached hereto, together with the names of platform men at railroad terminals, and city and country veterinarians. In connection with the subject of loans and commissions made to customers, it is recommended that the manager of sales, namely, P. D. Fox, or any division superintendent under the heading "Route Sales Managers, East," would be able to give considerable information as witnesses along the lines mentioned.

SCHEDULE "C"

In accordance with the verbal instructions of the counsel of your Committee, Hon. George Ward, I am attaching hereto list of materials and quantities of each used in the various ice creams manufactured by this company for the months of June and July, 1916. If the actual batch sheets are desired they can be obtained from any of the factories.

EXHIBIT No. 1

BORDEN'S CONDENSED MILK COMPANY — FARM PRODUCTS DIVISION, EAST
Reconstructed Statement of the Unit Profit on 470,463,698 Pounds of Milk Purchased, Reduced to 218,820,305 Quarts on a Basis of 2.15 Pounds to a Quart

	Amount	Unit cost	Amount	Unit selling price
Sales.....		.....	\$17,580,269 78	.080341
Cost of milk.....	\$8,062,763 33	.036847		
Factory expenses.....	2,700,582 70	.012342		
Freight.....	1,586,856 65	.007252		
Branch selling and distributing expenses.....	4,133,400 36	.018890		
General selling expenses.....	255,634 22	.001168		
General administration.....	203,106 13	.000927		
Total cost and expenses...	\$16,942,383 39	.077426		
Net profit.....	637,886 39	.002915		
	\$17,580,269 78	.080341	\$17,580,269 78	.080341

STATEMENT A OF EXHIBIT No. 1

BORDEN'S CONDENSED MILK COMPANY

Comparative Statement of Estimated Broken Containers, and Containers Charged into Cost, Fiscal Year 1915-1916

	Estimated quantity broken	Average unit cost of container put into stock	Cost of broken containers	Quantity charged to cost	Average unit cost of container charged into cost	Cost of broken containers charged into cost
East	{ Quart bottles 8,375.055 { Pint bottles 4,624.101 { Half pint bottles 2,020.018 { Boxes 111.392 { Cans 6,693	.029199 .020639 .017038 .732500 2.225000	\$244,543.23 95,575.54 34,417.07 \$1,528.71 14,891.93	10,650,000 4,500,000 1,650,000 120,000 5,400	.029199 .020639 .017038 .732500 2.225000	\$310,966.97 93,020.82 28,112.68 \$7,900.00 12,015.00
Total cost of estimated number of broken containers.....				Cost of containers charged to cost, east.....		\$532,015.47
West	{ Quart bottles 1,175.825 { Pint bottles 793.919 { Half pint bottles 271.666 { Boxes 17,955 { Cans 2,358	.031801 .021249 .018229 .733570 2.250000	\$37,392.41 16,869.98 4,952.20 13,171.25 5,305.50	1,536,000 540,000 300,000 25,200 1,200	.031801 .021249 .018229 .733570 2.250000	\$48,845.76 11,474.94 5,488.72 18,486.00 2,700.00
Total cost of estimated number of broken containers.....				Cost of containers charged to cost, west.....		\$8,975.42
Total cost of estimated number of broken containers, east and west.....						\$618,990.89

STATEMENT RECONCILING OVERCHARGE FOR QUART BOTTLES IN OPERATING COSTS

Actual quantity of bottles on hand on June 30, 1915, east.....	2,242,998
Quantity as per books on hand on June 30, 1915, east.....	3,988,091
Quantity of bottles charged on books not on hand June 30, 1915, east.....	1,745,093
Actual quantity of bottles on hand June 30, 1916, east.....	2,038,581
Quantity as per books on hand on June 30, 1916, east.....	1,508,729
Surplus over book record of bottles actually on hand on June 30, 1916, east.....	529,852
Number of bottles charged to cost not estimated to have been broken, east.....	2,271,945
Value of bottles charged to cost not estimated to have been broken, at .029199.....	\$66,426.12

EXHIBIT No. 2

BORDEN'S CONDENSED MILK COMPANY — FARM PRODUCTS DIVISION, EAST
*Statement of Unit Profits on 470,463,698 Pounds of Milk Purchased, Reduced to
 218,820,305 Quarts, on a Basis of 2.15 Pounds of Milk to Quart*

	Amount	Unit cost	Amount	Unit selling price
Sales.....			\$17,580,269 78	.080341
Cost of milk.....	\$8,062,763 33	.036847		
Factory expenses.....	2,767,008 82	.012646		
Freight.....	1,586,856 65	.007252		
Branch selling and distributing expenses.....	4,133,400 36	.018890		
General selling expenses.....	255,634 22	.001168		
General administration ex- penses.....	203,106 13	.000927		
Total cost and expenses....	\$17,008,809 51	.077730		
Net profit.....	571,460 27	.002611		
	\$17,580,269 78	.080341	\$17,580,269 78	.080341

EXHIBIT No. 3

BORDEN'S CONDENSED MILK COMPANY

Summary of Production and Cost for the Fiscal Year 1915-1916 at Eastern Route Factories

	Quantity	Value	Unit	Unit cost, June	Unit cost, December
Fluid, raw.....	Quart bottles..... Pint bottles..... Cans.....	16,697,134 6,081,796 50,703,366	.04972 .03974 .02340	.03952 .02340 .03265	.05680 .03265 .04969
Fluid, pasteurized.....	Quart bottles..... Pint bottles..... Cans..... Ind.....	58,685,965 11,165,012 7,812,728 257,640	.04977 .02782 .03104 .02535	.03959 .02782 .03104 .02049	.05809 .04962 .02728 .02049
Extra heavy.....	Jars..... Cans..... Quart bottles..... Jars.....	2,343,494 2,191,010 12,081 1,180,747	.03481 .03481 .02762 .02785	.08250 .02795 .05921 .05921	.13087 .48092 .49400 .09372
Route cream.....	Cans..... Quart bottles..... Quart bottles.....	173,140 1,506 4,793,198	.24451 .27940 .01758	.25916 .30529 .03228	.25916 .30529 .03228
Buttermilk.....	Cans..... Ind..... Ind.....	74,110 81,120 1,877,269	.01110 .02069 .13783	.01729 .01342 .11282	.01475 .03118 .17708
Plain.....	Cans..... Ind.....	239,920 260,335	.03399 .43060	.03970 .66365	.06384 .62867
Salt butter.....					
Froth butter.....					
Whey butter.....					
Green curd.....					
B. cream.....					
Bacillac jars.....					
No. 2 skim.....					
No. 3 skim.....					
American cheese.....					
Milk crystals.....					
Dry casein.....					
Casein manufacturing expense.....					
No. 1 cream cans.....					
Plain condensed, quart bottles.....					
9 skim shipped.....					

Bulk, condensed.....	1,070,080	47,301 14	.04420	.....	.04571
Skim cheese.....	91,020	5,085 01	.05587	.....	.05425
Confectioners' stock.....	20,312	923 39	.04546	.....	.04593
Whey cream.....	32	8 00	.25000	.....	.....
Bacillac, quarts.....	100	14 06	.14060	.....	.....
Pot cheese.....	3,480	103 57	.02976	.....	.....
80 per cent skim cheese.....	41,098	3,278 94	.07807	.....	.....
Endicott route, quarts.....	35,425	2,765 61	.07807	.....	.07991
Endicott route, pints.....	43,397	2,278 44	.05250	.05363	.05174
Extra heavy jars.....	7,660	1,263 86	.16499	.10774	.19103
Buttermilk, quarts.....	7,519	494 07	.06571	.05499	.04733
Salt butter, pounds.....	7,709	244 46	.34480	.01362	.39647
Bakers' cheese.....	1,600	97 26	.06079	.....	.....
No. 2 condensed, export cases.....	31,355	114,534 84	.....	.....	.....
Sour cream, quarts.....	320	71 68	.22400	.....	.....

EXHIBIT No. 3-A

BORDEN'S CONDENSED MILK COMPANY — FARM PRODUCTS DIVISION, WEST

Summary of Production and Cost for the Fiscal Year 1915-1916

	Quantity	Value	Unit	Unit cost, June	Unit cost, December
Fluid.....	Quarts.....	\$860,714 81	.045382	.03943	.04949
	Pints.....	203,724 65	.024586	.02058	.02659
	Cans.....	399,028 27	.044078	.03065	.04406
Extra heavy.....	Jars.....	8,726 86	.40835	.30379	.41325
	Quarts.....	2,087 79	.10374	.08287	.12308
No. 1.....	Cans.....	12,601 34	.20384	.16388	.22053
	Quarts.....	7,502 30	.18906	.15795	.21547
XX.....	Jars.....	1,009 96	.34505	.26598	.38823
	Quarts.....	11,189 20	.089000	.07281	.10060
	Cans.....	27,445 41	.33417	.25322	.36299
Route.....	Quarts.....	3,151 29	.25939	.23012	.28967
	Jars.....	165,099 87	.069553	.06336	.07908
	Cans.....	62,614 38	.24055	.22431	.28144
Buttermilk.....	Quarts.....	23,024 51	.016640	.01595	.02040
	Jars.....	549 80	.014203	.01499	.00956
Plain condensed.....	Cans.....	1,773 03	.032601	.06530	.14105
Salt butter, pounds.....	Casein, pounds.....	22,077 04	.12523		
	Butter, pounds.....	2,974 83	.39254		
Butter cream, cans.....	124,775	5,141 91	.011863		.01266
Skim shipped, cans.....	15,973	4,310 51	.32185		
Skim sales, cans.....	870,917	5,994 73	.004949	.00440	.00546
Butter cream, jars.....	3,549,031	3,147 77	.0016891	.00153	.00153
Sour cream, cans.....	10,911	3,143 70	.28550	.42872	
Extra heavy quarts.....	9,198	5 03	.34178	.30483	
	Quarts.....	12	.41917		.30410
Fluid.....	Pints.....	1,448,269	.04587	.04525	
	Cans.....	612,311	.025001		
Green curd.....	Cans.....	18,184	.039696		
30 per cent cream.....	70,798	815 14	.011514	.01175	
	664	201 50	.30346	.23392	

EXHIBIT No. 4 **BORDEN'S CONDENSED MILK COMPANY** *Summary of Production and Cost (for Ten Factories), Fiscal Year 1915-1916*

	Payroll	Other charges	Total	RAW FLUID			PASTEURIZED FLUID			
				Quart bottles	Pint bottles	40-quart cans	Quart bottles	Pint bottles	40-quart cans	
Fluid used, pounds.....			37,060.833	6,604.169	973.546	10,115.395	15,533.038	1,022.034	1,288,780	
Fluid waste, pounds.....			300.041	46.197	6.270	39.648	166.085	14.864	14,556	
Production, quarts.....			18,270.734	3,070.812	905.620	4,705.960	7,350.290	950.728	559,440	
Value milk.....		\$634,925.74	\$634,925.74	\$111,236.60	\$16,634.31	\$170,161.92	\$269,906.41	\$18,170.23	\$22,899.28	
Unit cost.....				.036223	.018363	.036159	.03672	.019112	.038200	
Route sale overhead expense.....		21,369.02	21,369.02	4,144.08	595.36	5,321.60	8,761.32	792.24	867.15	
Depreciation, bottles.....		29,919.38	29,919.38	6,983.77	1,896.01		17,130.53	1,878.58		
Depreciation, boxes.....		4,767.31	4,767.31	1,200.40	190.02		3,066.39	84.46		
Depreciation, cans.....		1,297.61	1,297.61			809.91			482.76	
Total overhead and depreciation.....		57,353.32	57,353.32	12,328.25	2,081.39	6,131.51	28,958.24	2,755.28	1,349.91	
Unit cost.....				.004015	.002961	.001303	.00394	.002898	.002252	
General factory expense.....	\$24,694.72	\$4,651.33	\$29,346.05	\$6,939.37	\$1,049.29	\$5,550.87	\$10,510.49	\$1,297.50	\$580.04	
General factory repair and maintenance.....	1,862.46	14,181.33	16,043.79	3,343.29	911.75	2,854.96	5,850.37	734.57	253.38	
Teaming and stable expense.....	1,647.49	1,644.31	3,291.80	685.82	154.10	973.39	958.60	128.97	65.77	
Hauling expense.....	5,996.99	1,240.36	6,637.35	1,273.85	189.00	712.74	8,284.34	175.29	309.04	
Power house expense.....	5,855.54	8,191.79	13,847.33	2,260.74	615.95	1,925.14	6,320.02	734.33	326.87	
"Receiving" expense.....	4,289.63	1,071.76	5,361.39	1,098.47	160.02	1,400.37	2,038.10	155.52	198.43	
Bottling expense.....	12,551.63	14,574.65	27,126.28	3,739.95	1,080.20	1,252.69	17,735.80	1,425.50	564.32	
Pasteurizing expense.....	4,070.59	1,395.46	5,066.05				4,611.36	366.66	338.85	
Separating expense.....	576.11	189.04	765.15							
Butter making expense.....	7.67	4.92	12.59							
Buttermilk making expense.....	380.02	121.86	501.88							
Packing and loading route products.....	7,769.12	9,801.44	17,570.56	5,225.74	709.68	2,430.28	7,235.47	550.76	354.54	
Washing and sterilizing bottles and boxes.....	15,814.09	2,524.54	18,338.63	4,159.79	1,234.86	1,084.00	9,462.94	1,007.65	276.02	
Froth butter.....		1,871.45	1,871.45	8.05	1.25	8.05	101.37	85	8.94	
Skin.....		1,042.03	1,042.03							
Total expenses.....	84,416.01	58,963.37	143,379.38	28,717.65	7,003.10	18,176.39	67,926.21	6,575.90	3,348.32	
Unit cost.....				.006352	.007733	.003862	.00924	.00917	.005586	
Total value and expenses.....	\$84,416.01	\$751,242.43	\$835,658.44	\$152,282.50	\$26,318.80	\$194,469.82	\$366,790.85	\$27,501.41	\$27,597.51	
Unit cost.....				.049590	.029062	.041324	.04990	.028927	.046038	

EXHIBIT No. 4 — (Continued)
BORDEN'S CONDENSED MILK COMPANY
Summary of Production and Cost (for Ten Factories), Fiscal year 1915-1916

	Route cream, jars	EXTRA HEAVY CREAM		Buttermilk, quart bottles	Skim milk shipped	Froth butter
		Jars	40-quart cans			
Fluid used, pounds.....	48,177	858,065	617,629	.....	.....	.....
Fluid waste, pounds.....	371	6,612	5,438	.....	.....	.....
Production, quarts.....	14,140	160,740	28,331	483,473	1,200	.....
Value milk.....		\$14,482.44	\$10,606.47	.....	.....	.....
Unit cost.....	\$828.08	.09010	.37458	.....	.....	.....
Route sale overhead expense.....	29.31	517.49	340.47	.....	.....	.....
Depreciation, bottles.....	74.42	825.45	.....	\$1,130.62	.....	.....
Depreciation, boxes.....	2.98	32.97	.....	190.09	.....	.....
Depreciation, cans.....	.....	.....	4.94	.....	.....	.....
Total overhead and depreciation.....	106.71	1,375.91	345.41	1,320.71	.....	.....
Unit cost.....	.007547	.00856	.01219	.002732	.....	.....
General factory expense.....	\$65.39	\$851.75	\$158.30	\$1,443.05	.....	.....
General factory repairs.....	54.38	654.48	117.28	1,269.33	.....	.....
Teaming and stable expense.....	8.36	108.63	20.43	187.64	.....	.....
Hauling expense.....	21.04	331.72	250.33	.....	.....	.....
Power house expense.....	31.21	401.06	75.83	803.24	\$52.94	.....
Receiving' expense.....	10.11	130.54	119.78	.....	.....	.....
Bottling expense.....	31.49	357.31	11.90	907.12	.....	.....
Pasteurizing expense.....	.....	.....	.....	214.30	134.88	.....
Separating expense.....	23.53	452.75	288.87	.....	.....	.....
Butter making expense.....	.....	.....	.....	.....	.....	.....
Buttermilk making expense.....	.....	.....	.....	501.88	.....	\$12.59
Packing and loading route products.....	17.19	177.23	14.05	855.60	.....	.....
Washing and sterilizing bottles and boxes.....	22.70	274.32	18.90	797.92	.....	.....
Froth butter.....	42.20	850.14	657.94	.....	187.15	4.19
Skin.....	.....	.....	.....	1,039.45	2.58	.....
Total expenses.....	243.20	2,939.65	417.73	8,019.53	3.30	8.40
Unit cost.....	.017199	.01829	.01474	.016587	.002750	.....
Total value and expense.....	\$1,177.99	\$18,798.00	\$11,369.61	\$9,340.24	\$3.30	\$8.40
Unit cost.....	.083309	.11695	.40131	.019319	.002750	.....

SCHEDULE 1 OF EXHIBIT No. 4

BORDEN'S CONDENSED MILK COMPANY

Production Cost of milk and Cream at Papakating Station, Fiscal Year 1915-1916

423

	Payroll	Other charges	Total	PASTEURIZED FLUID			
				Quart bottles, quarts	Pint bottles, quarts	40-quart cans quarts	
Fluid used, pounds.....				4,779.665	796.184	341.331	
Fluid waste, pounds.....				76.551	12.998	5.593	
Production, quarts.....				2,223.097	740.636	158,760	
Value milk.....				\$82,510 13	\$14,439 97	\$5,578 80	
Unit cost.....				.037115	.019497	.035141	
Unit cost for December, 1915.....				.043693	.021847	.043687	
Unit cost for June, 1916.....				.029016		.029016	
Route overhead.....				3,398 80	662 65	175 22	
Depreciation, bottles.....				2,561 02	1,443 80		
Depreciation, boxes.....				5,170 90	40 11		
Depreciation, cans.....				1,051 15			
Total.....				25 79			
Unit cost.....				11,090 53	2,146 56	201 01	
General factory expense.....				.003933	.002898	.001266	
General factory repairs and maintenance.....				\$2,099 86	\$869 43	\$57 47	
Teaming and stable expense.....				1,694 57	522 37	43 15	
Hauling expense.....				339 11	106 65	9 77	
Power house expense.....				1,622 59	156 59	100 75	
"Receiving" expense.....				1,766 97	521 19	52 85	
Bottling expense.....				500 78	108 88	36 68	
Pasteurizing expense.....				4,369 77	1,072 44	148 66	
Packing and loading route products.....				1,453 09	275 98	57 10	
Washing and sterilizing bottles and boxes.....				1,901 34	383 47	40 69	
Froth butter (minus).....				2,425 12	747 70	34 74	
Total.....				88 89	32 88	7 57	
Unit cost.....				18,084 31	4,731 82	574 29	
Total value and expense.....				.008108	.006389	.003617	
Yearly unit cost.....				\$109,278 47	\$21,318 35	\$6,354 16	
Unit cost for December, 1915.....				.049156	.028784	.040024	
Unit cost for June, 1916.....				.056336	.031422	.048650	
Unit cost for bottles.....				.041354		.032034	
				.002325	.001949		

SCHEDULE 3 OF EXHIBIT No. 4

BORDEN'S CONDENSED MILK COMPANY — COPAKE

Summary of Production and Cost Showing Unit Cost, Fiscal Year 1915-1916

	Payroll	Other charges	Total	RAW FLUID	
				*Quart bottles, quarts	40-quart cans quarts
Fluid used, pounds.....			2,849,483	227,254	2,622,290
Fluid waste, pounds.....			6,955	1,530	14,725
Production, quarts.....			1,325,837	105,702	1,219,635
Value fluid.....		\$50,097 60	\$50,097 60	\$3,447 47	\$46,650 13
Unit cost.....				.032615	.038250
Unit cost for December, 1915.....					.044032
Unit cost for June, 1916.....					.028642
Route overhead.....		1,623 59	1,623 59	182 11	1,441 48
Depreciation, bottles.....		242 58	242 58	242 58	
Depreciation, cans.....		216 56	216 56		216 56
Total.....		2,082 73	2,082 73	424 69	1,658 04
Unit cost of overhead and bottles, etc.....				.004018	.001359
General factory expense.....	\$2,467 30	\$128 46	\$2,595 76	\$703 72	\$1,892 04
General factory repairs and maintenance.....	48 50	1,206 95	1,255 45	265 74	989 71
Tanning and stable expense.....	375 90	455 68	1,831 58	190 10	641 48
Power house expense.....	480 68	596 34	1,083 02	254 89	828 13
Receiving expense.....	181 97	41 60	223 57	35 14	188 43
Bottling expense.....	290 74	104 04	394 78	150 07	244 71
Packing and loading route products.....	151 71	954 22	1,105 93	500 40	605 53
Washing and sterilizing bottles and boxes.....	256 10	37 44	293 54	120 62	172 92
Total.....	4,258 90	3,524 73	7,783 63	2,220 68	5,562 95
Unit cost.....				.021009	.004561
Total value and expense.....	\$4,258 90	\$55,705 06	\$59,963 96	\$6,092 84	\$53,871 12
Yearly unit cost.....				.057642	.044170
Unit cost for December, 1915.....					.049425
Unit cost for June, 1916.....					.034521
Unit cost of bottles.....				.002295	

* Milk bottled only in the months of July, August and September, 1915.

SCHEDULE 4 OF EXHIBIT No. 4
BORDEN'S CONDENSED MILK COMPANY
Production Cost of Milk at Washingtonville Station, Fiscal Year 1915-1916

	Payroll	Other charges	Total	Raw fluid, 40-quart cans, quarts
Fluid used, pounds.....	.....	.....	2,757.099	2,757.099
Fluid waste, pounds.....	.....	.....	17.572	17.572
Production, quarts.....	.....	.....	1,282.341	1,282.341
Value milk.....	.....	\$47,227.06	\$47,227.06	\$47,227.06
Unit cost.....	.....	.....	.039829	.....
Unit cost for December, 1915.....	.....	.....	.043748	.....
Unit cost for June, 1916.....	.....	.....	.028683	.....
Route overhead.....	.....	1,644.99	1,644.99	1,644.99
Depreciation.....	.....	232.70	232.70	232.70
Total.....	.....	1,877.69	1,877.69	1,877.69
Unit cost of route overhead and bottles.....	.....	.....	.001464	.....
General factory expense.....	\$852.02	\$1,041.90	\$1,893.92	\$1,893.92
General factory repairs and maintenance.....	219.34	938.69	1,158.03	1,158.03
Teaming and stable expense.....	.....	248.52	248.52	248.52
Power house expense.....	79.61	376.91	456.52	456.52
"Receiving" expense.....	235.00	102.90	337.90	337.90
Bottling expense.....	287.75	78.27	366.02	366.02
Packing and loading route products.....	285.45	406.70	692.15	692.15
Washing and sterilizing bottles and boxes.....	271.50	49.36	320.86	320.86
Total.....	2,230.67	3,243.25	5,473.92	5,473.92
Unit cost.....	.....	.....	.004269	.....
Total value and expense.....	\$2,230.67	\$52,348.00	\$54,578.67	\$54,578.67
Yearly unit cost.....	.....	.....	.042562	.....
Unit cost for December, 1915.....	.....	.....	.048867	.....
Unit cost for June, 1916.....	.....	.....	.033439	.....

SCHEDULE 5 OF EXHIBIT No. 4
BORDEN'S CONDENSED MILK COMPANY—ULSTER
Summary of Production and Cost, Showing Unit Cost, Fiscal Year 1915-1916

	Payroll	Other charges	Total	RAW FLUID		
				Quart bottles	Pint bottles	40-quart cans
Fluid used, pounds.....			3,634,065	1,843,196	352,714	1,438,155
Fluid waste, pounds.....			15,550	10,670	1,788	3,192
Production, quarts.....			1,853,537	857,406	328,104	670,027
Value fluid.....		\$59,949 80	\$59,949 80	\$31,661 77	\$5,997 65	\$22,290 38
Unit cost.....				.036928	.018280	.033268
Unit cost for December, 1915.....				.044292	.022146	.044296
Unit cost for June, 1916.....				.027714	.013858	.027594
Route overhead.....		1,986 55	1,986 55	1,200 95	217 59	568 01
Depreciation, bottles.....		2,708 58	2,708 58	2,030 36	678 22	
Depreciation, boxes.....		317 42	317 42	246 46	70 96	
Depreciation, cans.....		99 54	99 54			99 54
Total.....		5,112 09	5,112 09	3,477 77	966 77	667 55
Unit cost.....				.004056	.002947	.000996
General factory expense.....	\$2,919 60	\$226 55	\$3,146 15	\$1,909 94	\$724 09	\$512 12
General factory repairs and maintenance.....	323 01	628 70	951 71	571 07	217 69	162 95
Teaming and stable expense.....	115 35	85 63	200 98	122 10	46 48	32 40
Power house expense.....	268 47	400 16	668 63	403 87	152 17	112 59
"Receiving" expense.....	276 26	154 92	431 18	234 96	44 72	151 50
Bottling expense.....	944 04	417 03	1,361 07	889 45	342 47	129 15
Bottling and loading route products.....	492 18	1,546 06	2,038 24	1,362 38	265 45	410 41
Packing and sterilizing bottles and boxes.....	1,301 77	340 22	1,641 99	1,075 17	423 02	143 80
Washing and sterilizing bottles and boxes.....	6,640 68	3,799 27	10,439 95	6,568 94	2,216 09	1,654 92
Total expense.....				.007661	.006754	.002470
Unit cost.....						
Total value and expense.....	\$6,640 68	\$68,861 16	\$75,501 84	\$41,708 48	\$9,180 51	\$24,612 85
Yearly unit cost.....				.08645	.027881	.036734
Unit cost for December, 1915.....				.053915	.031668	.047869
Unit cost for June, 1916.....				.039332	.023154	.031154
Unit cost of bottles.....				.002368	.002067	

SCHEDULE 6 OF EXHIBIT No. 4
Production Cost of Milk at Thompson Station, Fiscal Year 1915-1916

	Payroll	Other charges	Total	RAW FLUID			
				Quart bottles	Pint bottles	40-quart cans	
Fluid used, pounds.....			3,954,147	2,825,961	402,545	725,641	
Fluid waste, pounds.....			27,098	20,294	2,955	3,849	
Production, quarts.....			2,026,404	1,314,401	374,400	337,649	
Value milk.....		\$65,138 31	\$65,138 31	\$47,054 33	\$6,886 77	\$11,197 21	
Unit cost.....				.035799	.018391	.033173	
Unit cost for December, 1915.....				.044238	.022119	.044239	
Unit cost for June, 1916.....				.02745	.013725	.02745	
Route overhead.....		2,248 21	2,248 21	1,714 02	244 46	289 73	
Depreciation, bottles.....		3,869 44	3,869 44	3,093 73	775 71		
Depreciation, boxes.....		517 23	517 23	434 27	82 96		
Depreciation, cans.....		43 47	43 47			43 47	
Total.....		6,678 35	6,678 35	5,242 02	1,103 13	333 20	
Unit cost of route overhead and bottles, etc.....				.003988	.002949	.009387	
General factory expense.....	\$1,616 73	\$2,123 51	\$3,740 24	\$2,705 84	\$805 98	\$228 42	
General factory repairs and maintenance.....	485 60	1,007 87	1,493 47	1,084 28	315 97	93 22	
Teaming and stable expense.....	155 80	79 82	235 62	169 44	53 69	12 49	
Hauling expense.....	545 80	307 71	853 51	583 66	95 16	174 66	
Power house expense.....	358 00	762 37	1,120 37	809 67	253 08	57 62	
Receiving expense.....	527 04	121 17	648 21	472 95	69 67	105 59	
Bottling expense.....	1,242 09	636 16	1,878 25	1,400 52	403 06	74 67	
Packing and loading route products.....	1,283 88	1,143 32	2,427 20	2,034 00	262 42	130 78	
Washing and sterilizing bottles and boxes.....	1,661 11	1,447 15	2,108 26	1,634 27	465 13	8 86	
Total.....	7,876 05	6,629 08	14,505 13	10,894 13	2,724 19	886 31	
Unit cost.....				.008239	.007275	.002626	
Total value and expense.....	\$7,876 05	\$78,445 74	\$86,321 79	\$63,190 98	\$10,714 09	\$12,416 72	
Yearly unit cost.....				.048076	.028612	.036786	
Unit cost for December, 1915.....				.057299	.032309	.048424	
Unit cost for June, 1916.....				.041117	.026039	.030778	
Unit cost of bottles.....				.002354	.002072		

SCHEDULE 7 OF EXHIBIT No. 4
BORDEN'S CONDENSED MILK COMPANY — FORT ANN
Summary of Production and Cost, Showing Unit Cost, Fiscal Year 1915-1916

	Payroll	Other charges	Total	PASTEURIZED FLUID	
				Quart bottles, quarts	40-quart cans, quarts
Fluid used, pounds.....				4,429,818	129,640
Fluid waste, pounds.....				23,515	802
Production, quarts.....				2,060,414	60,299
Value fluid.....					
Unit cost.....				\$73,873 14	\$2,336 33
Unit cost for December, 1915.....				.035854	.038746
Unit cost for June, 1916.....				.044645	.044645
Route overhead.....				.027900	.027900
Depreciation, bottles.....				2,626 37	2,545 86
Depreciation, boxes.....				4,769 40	4,769 40
Depreciation, cans.....				745 38	745 38
Total.....				8 43	8 43
Unit cost route overhead and bottles, etc.....				8,149 58	88 94
General factory expense.....				.003912	.001475
General factory repairs and maintenance.....					
Tearing and stable expense.....	\$1,730 52	\$960 23	\$2,690 75	\$2,680 44	\$10 31
Hauling expense, dairymen.....	219 55	1,516 34	1,735 89	1,729 01	6 88
Power house expense.....	2 85	192 87	195 72	191 95	92
"Receiving" expense.....	764 60	379 46	1,144 06	1,136 72	19 65
Bottling expense.....	205 62	972 12	1,177 74	1,173 79	12 93
Pasteurizing expense.....	2,028 95	105 95	2,134 90	2,125 47	6 66
Packing and loading route products.....	1,258 16	5,298 35	6,556 51	6,541 91	11 83
Washing and sterilizing bottles and boxes.....	287 10	69 88	356 98	351 02	13 02
Total.....	2,899 94	540 75	3,440 69	3,428 89	8 96
Unit cost.....	10,297 29	181 76	10,479 05	3,076 38	5 32
Yearly unit cost.....				20,418 52	96 48
Unit cost for December, 1915.....				.009900	.001600
Unit cost for June, 1916.....				.049675	.041821
Unit cost for bottles only.....				.006805	.047113
				.039204	.030411
				.002315	

SCHEDULE 8 OF EXHIBIT No. 4
BORDEN'S CONDENSED MILK COMPANY — BARTON
Summary of Production and Cost Showing Unit Costs, Fiscal Year 1915-1916

	Payroll	Other charges	Total	Raw fluid, 40-quart cans, quarts
Fluid used, pounds.....	.....	.....	.....	1,442,475
Fluid waste, pounds.....	.....	.....	.....	817
Production, quarts.....	.....	.....	.....	670,923
Value milk.....	.....	\$23,196 14	\$23,196 14	\$23,196 14
Unit cost.....	.....	.....	.....	.03457
Unit cost for December, 1915.....	.....	.....	.....	.044175
Unit cost for June, 1916.....	.....	.....	.....	.025496
Route overhead.....	.....	\$22 51	822 51	822 51
Depreciation.....	.....	127 29	127 29	127 29
Total.....	.....	949 80	949 80	949 80
Unit cost of route overhead and bottles.....	.....	.....	.....	.00142
General factory expense.....	\$440 77	\$199 45	\$640 22	\$640 22
General factory repairs and maintenance.....	10 50	133 78	144 28	144 28
Teaming and stable expense.....	.....	.....	.....	.....
Hauling expense.....	.....	2 30	2 30	2 30
Power house expense.....	144 38	147 69	292 07	292 07
"Receiving" expense.....	365 01	42 28	407 29	407 29
Bottling expense.....	159 36	79 26	238 62	238 62
Pasteurizing expense.....	.....	.....	.....	.....
Packing and loading route products.....	97 98	312 96	410 94	410 94
Washing and sterilizing bottles and boxes.....	260 76	8 12	268 88	268 88
Total.....	1,478 76	925 84	2,404 60	2,404 60
Unit cost.....	.....	.....	.....	.00358
Total value and expense.....	\$1,478 76	\$25,071 78	\$26,550 54	\$26,550 54
Yearly unit cost.....	.....	.....	.....	.03957
Unit cost for December, 1915.....	.....	.....	.....	.048667
Unit cost for June, 1916.....	.....	.....	.....	.033439

SCHEDULE 9 OF EXHIBIT No. 4

BORDEN'S CONDENSED MILK COMPANY

Production Cost of Milk and Cream at Hopewell Junction Station, Fiscal Year 1915-1916

	Payroll	Other charges	Total	RAW FLUID		
				Quart bottles	Pint bottles	40-quart cans
Fluid used, pounds.....	.....	.....	4,102.608	1,577.304	218.287	783.428
Fluid waste, pounds.....	.....	.....	32,152	12,190	1,527	6,304
Production, quarts.....	.....	.....	.....	733,616	203,056	364,387
Value milk.....	.....	\$70,070.87	\$70,070.87	\$27,005.19	\$3,749.89	\$13,398.80
Unit cost.....	.....	.....	.....	.036810	.018488	.036771
Unit cost for December, 1915.....	.....	.....	.....	.043532	.021763	.043531
Unit cost for June, 1916.....	.....	.....	.....	.028120	.014082	.028119
Route overhead.....	.....	2,333.22	2,333.22	946.10	133.81	366.54
Depreciation, bottles.....	.....	.....	.....	1,720.13	442.08	.....
Depreciation, boxes.....	.....	4,793.09	4,793.09	276.09	36.10	.....
Depreciation, cans.....	.....	.....	.....	.....	.....	57.22
Total.....	.....	7,126.31	7,126.31	2,942.32	611.49	423.76
Unit cost.....	.....	.....	.....	.004011	.003011	.001163
General factory expense.....	\$4,135.63	\$476.09	\$4,611.72	\$1,507.52	\$419.22	\$166.49
General factory repairs and maintenance.....	1,218.69	2,843.34	4,062.03	1,369.92	378.09	218.55
Teaming and stable expense.....	1,546.04	271.99	1,818.03	193.66	53.93	23.38
Hauling expense.....	1,556.34	278.16	1,834.50	684.18	93.81	453.41
Power house expense.....	1,876.71	548.52	2,425.23	762.54	210.70	97.71
"Receiving" expense.....	675.17	154.03	829.20	329.36	45.63	143.78
Bottling expense.....	2,399.29	573.46	2,972.75	1,208.20	334.67	122.06
Pasteurizing expense.....	121.88	227.30	349.18	.....	.....	.....
Separating expense.....	576.11	189.04	765.15	.....	.....	.....
Buttermilk making expense.....	10.34	2.25	12.59	.....	.....	.....
Buttermilk making expense.....	380.02	121.86	501.88	1,176.79	181.81	121.27
Packing and loading route products.....	1,032.22	1,511.74	2,543.96	1,250.84	346.21	143.00
Washing and sterilizing bottles and boxes.....	2,276.05	582.87	2,858.92	.....	.....	.....
Skim.....	.....	854.88	854.88	.....	.....	.....
Froth butter (minus).....	.....	1,572.62	1,572.62	9.37	1.25	7.53
Total.....	16,312.48	7,342.91	23,655.39	8,473.64	2,062.82	1,487.12
Unit cost.....	.....	.....	.....	.011551	.010159	.004081
Total value and expense.....	\$16,312.48	\$84,540.09	\$100,852.57	\$38,421.15	\$6,424.20	\$15,309.68
Yearly unit cost.....	.....	.....	.....	.053722	.031638	.042015
Unit cost for December, 1915.....	.....	.....	.....	.060965	.037886	.052012
Unit cost for June, 1916.....	.....	.....	.....	.037727	.022463	.029547
Unit cost, depreciation of bottles.....	.....	.....	.....	.002345	.002177	.....

EXHIBIT No. 5

Summary of Production and Cost, Showing Unit Cost, Long Island City Pasteurizing Plant, Fiscal Year, 1913-1916

435

	Payroll	Other charges	Total	PASTEURIZED FLUID			
				Quart bottles	Pint bottles	40-quart cans	
Fluid used, quarts.....				10,810.484	3,443.666½	553.514	
Fluid waste, quarts.....				421.224	137.891	21.253	
Cream used, quarts.....							
Cream waste, quarts.....							
Production, quarts.....				10,810.484	6,887.333	553.514	
Value fluid.....							
Value cream.....				480.299 73	151.232 84	24.119 76	
Total.....				480.299 73	151.232 84	24.119 76	
Less: into other cream.....							
Total value.....				480.299 73	151.232 84	24.119 76	
Unit cost.....				.044429	.021958	.043575	
Unit cost for December, 1915.....				.03314	.01657	.03314	
Depreciation, bottles.....				25,777 38	14,401 58		
Depreciation, boxes.....				2,836 47	1,193 31		
Depreciation, cans.....							
Total depreciation.....				28,613 85	15,594 89	23 58	
Unit cost.....				.002647	.002264	.000043	
General factory expense.....							
General factory repairs and maintenance.....				\$8,230 82	\$3,014 06	\$128 13	
Teaming and stable expense.....				11,000 51	3,944 23	202 71	
Power house expense.....				27,856 17	9,117 37	1,421 07	
Ice manufacturing expense.....				4,220 10	1,543 42	90 91	
"Receiving" expense.....							
Bottling expense.....				2,902 74	918 54	146 75	
Pasteurizing expense.....				8,823 17	3,607 33	164 67	
Packing and loading route products.....				6,345 66	2,087 29	319 18	
Washing and sterilizing bottles and boxes.....				9,196 73	3,382 88	172 96	
Separating expense.....				11,308 07	4,292 66	169 27	
Transfer to pasteurizing expense (minus)							
Total expense.....				90,883 97	31,907 78	2,815 65	
Unit cost.....				.008407	.004633	.005087	
Total value and expense.....							
Yearly unit cost.....				\$599,797 55	\$198,735 51	\$26,958 99	
Unit cost for December, 1915.....				.05483	.02885	.048705	
Unit cost for June, 1916.....				.061610	.031975	.086296	
Unit cost of bottles.....				.046666	.024879	.040212	
Unit cost of bottles.....				.092384	.002091		

EXHIBIT No. 5 — (Continued)
 Summary of Production and Cost, Showing Unit Cost, Long Island City Pasteurizing Plant, Fiscal Year 1915-1916

	Extra heavy cream	Route cream	No. 1 cream	Raw fluid	Ice manu- facturing	Sour cream
Fluid used, quarts.....	124,444	43,361	21,320	47,823	.....	65,802
Fluid waste, quarts.....	4,169	1,439	835	1,841	.....	2,451
Cream used, quarts.....	206,977	70,863	17,696	.....	.....	4,309
Cream waste, quarts.....	18,334	6,065	39,016	.....	.....	.....
Production, quarts.....	305,732	112,001	.....	47,823	.....	9,801
Value fluid.....	\$5,741 12	\$1,872 62	\$851 54	\$2,232 35	.....	\$2,605 84
Value cream.....	117,414 83	25,772 66	7,239 48	.....	.....	1,413 41
Total.....	123,155 95	27,645 28	8,091 02	2,232 35	.....	4,019 25
Less: into other cream.....	5,275 20	340 95	.....	.....	.....	.....
Total value.....	117,880 75	27,304 33	8,091 02	2,232 35	.....	4,019 25
Unit cost.....	38557	24378	20730	04688	.....	41009
Unit cost for December, 1915.....	44553	26358	17403	.....	.....	.....
Unit cost for June, 1916.....	31685	26311	.....	.....	.....	.....
Depreciation, bottles.....	654 92	92 47	.....	.....	.....	.....
Depreciation, boxes.....	54 96	7 78	.....	.....	.....	.....
Depreciation, cans.....	19 48	.....	4 37	.....	.....	.....
Total depreciation.....	729 36	107 21	4 37	.....	.....	.....
Unit cost.....	002390	000960	000110	.....	.....	.....
General factory expense.....	\$231 20	\$30 90	\$8 86	.....	.....	\$259 71
General factory repairs and maintenance.....	401 67	85 86	9 43	.....	.....	115 29
Teaming and stable expense.....	1,044 88	222 92	114 97	\$116 19	.....	216 09
Power house expense.....	141 58	18 43	6 03	61	\$6,103 59	82 53
Ice manufacturing expense.....	.....	.....	.....	.....	2,855 23	.....
"Receiving" expense.....	104 58	21 89	9 33	.....	.....	.....
Bottling expense.....	151 94	28 41	9 02	12 86	.....	16 94
Pasteurizing expense.....	262 36	56 13	23 32	.....	.....	2 53
Packing and loading route products.....	115 20	48 25	11 05	4 29	.....	4 54
Washing and sterilizing bottles and boxes.....	215 87	40 28	12 46	.....	.....	2 91
Separating expense.....	261 04	10 37	.....	.....	.....	3 47
Transfer to pasteurizing expense.....	.....	.....	.....	.....	4,174 22	201 47
Total expense.....	2,930 32	513 44	204 47	133 95	4,784 80	935 48
Unit cost.....	00958	00459	00532	002800	.....	00544
Total value and expense.....	\$121,540 43	\$27,924 98	\$8,299 86	\$2,366 30	\$4,784 80	\$4,955 96
Yearly unit cost.....	39754	24933	21273	049480	.....	50563
Unit cost for December, 1915.....	45345	26969	.....	.....	.....	.....
Unit cost for June, 1916.....	34152	23708	18126	.....	.....	.....

EXHIBIT No. 6

BORDEN'S CONDENSED MILK COMPANY

Production Cost of Milk and Cream at DeKalb Avenue Pasteurizing Plant, Fiscal Year 1915-1916

	Payroll	Other charges	Total	PASTEURIZED FLUID		
				Quart bottles	Pint bottles	40-quart cans
Fluid used, quarts.....				23,395,940	6,697,110	1,756,967
Fluid waste, quarts.....				839,275	242,780	67,971
Cream used, quarts.....						
Cream waste, quarts.....						
Production, quarts.....				23,395,940	13,394,220	1,756,967
Value fluid.....						
Value cream.....						
Total value.....		\$1,432,589 78	\$1,432,589 78	\$1,027,656 51	\$291,155 17	\$74,897 06
Less: Into other cream.....		288,969 56	288,969 56			
Total.....		1,721,559 28	1,721,559 28	1,027,656 51	291,155 17	74,897 06
Unit cost of fluid.....		11,450 50	1,710,108 78	1,027,656 51	291,155 17	74,897 06
Unit cost of fluid, December, 1915.....				043925	021788	042344
Unit cost of fluid, June, 1916.....				056913	025456	056453
Depreciation, bottles.....				032894	032242	041962
Depreciation, boxes.....		82,845 20	82,845 20	55,066 38	27,778 91	
Depreciation, cans.....		8,328 16	8,328 16	5,983 68	2,344 48	
Total depreciation.....		91,304 26	91,304 26	61,050 06	30,123 39	78 68
Unit cost of depreciation.....				.002609	.002249	.000045
General factory expense.....	\$16,974 69	\$10,684 16	\$27,658 75	\$19,910 41	\$6,754 35	\$455 49
General factory repairs and maintenance.....	5,863 69	15,168 45	21,032 05	14,999 88	5,218 14	346 15
Tram and stable expense.....	6,226 05	120,123 73	126,349 78	88,790 02	25,926 51	6,307 37
Power house expense.....	2,953 74	20,642 74	23,596 48	8,462 01	2,824 82	233 28
Ice manufacturing expense.....	5,170 91	1,511 61	6,682 52			
Receiving expense.....	9,114 03	1,767 77	10,881 79	7,638 28	2,181 99	595 59
Bottling expense.....	22,902 96	10,815 35	33,718 31	24,597 43	8,389 01	548 52
Pasteurizing expense.....	6,395 05	15,216 74	21,612 79	15,297 94	4,452 06	1,217 15
Separating expense.....	349 69	249 35	599 04			
Packing and loading route products.....	18,870 74	27,030 19	45,909 93			
Washing and sterilizing bottles and boxes.....	28,269 25	2,004 10	30,273 35	33,062 98	11,455 99	933 82
Transferred to pasteurized expense (minus).....		12,010 15	22,050 19		7,578 77	451 29
Total expense.....	123,100 60	213,204 04	336,304 64	234,799 14	74,752 34	11,088 66
Unit cost of expense.....				.010036	.005533	.006311
Total value and expense.....	\$123,100 60	\$2,014,617 08	\$2,137,717 68	\$1,323,505 71	\$396,060 90	\$85,564 40
Yearly unit cost.....				.056570	.020570	.048700
Unit cost for December, 1915.....				.062077	.032242	.056453
Unit cost for June, 1916.....				.049356	.026397	.041962
Unit cost of bottles.....				.002334	.002074	

EXHIBIT No. 6 — (Continued)
BORDEN'S CONDENSED MILK COMPANY
Production Cost of Milk and Cream at DeKalb Avenue Pasteurizing Plant, Fiscal Year 1915-1916

	Extra Heavy cream	Route cream	No. 1 cream	Sour cream	Raw fluid	Ice manufacturing
Fluid used, quarts.....	542,377	66,433	48,920	118,802	125,880	.....
Fluid waste, quarts.....	20,510	2,227	1,493	3,800	4,325	.....
Cream used, quarts.....	583,754	102,178	49,223	34,867	.....	.....
Cream waste, quarts.....	28,600	4,220	2,829	.....	.....	.....
Production, quarts.....	598,757	168,617	97,669	48,484	125,880	.....
Value fluid.....	\$24,353 09	\$2,814 09	\$1,947 09	\$4,308 76	\$5,957 95	.....
Value cream.....	219,952 04	39,120 41	18,808 71	11,088 40	.....	.....
Total value.....	244,305 13	41,934 50	20,755 80	15,397 16	\$5,957 95	.....
Less: Into other cream.....	11,407 67	42 83	.....	.....	.....	.....
Total.....	232,897 46	41,891 67	20,755 80	15,397 16	5,957 95	.....
Unit cost of fluid.....	398090	248442	212512	317572	.047331	.....
Unit cost of fluid December, 1915.....	44438	27532	23978	.....	.....	.....
Unit cost of fluid June, 1916.....	31307	19537	1736	.....	.....	.....
Depreciation, bottles.....	.....	.....	.....	.....	.....	.....
Depreciation, boxes.....	.....	.....	.....	.....	.....	.....
Depreciation, cans.....	30 99	6 97	9 62	4 55	.....	.....
Total depreciation.....	30 99	6 97	9 62	4 55	.....	.....
Unit cost of depreciation.....	.000052	.000040	.00010	.00009	.....	.....
General factory expense.....	\$449 50	\$39 53	\$33 45	\$16 02	.....	.....
General factory repairs and maintenance.....	389 99	33 39	26 16	18 34	.....	.....
Teaming and stable expense.....	3,214 25	545 38	441 65	759 80	364 80	.....
Power house expense.....	203 05	17 77	16 83	7 70	.....	\$11,831 02
Ice manufacturing expense.....	.....	.....	.....	.....	.....	6,682 52
Receiving expense.....	306 10	44 56	32 28	51 16	41 83	.....
Bottling expense.....	108 20	31 43	26 36	16 76	16 76	.....
Pasteurizing expense.....	455 85	85 89	64 65	38 75	.....	.....
Separating expense.....	531 31	8 81	.....	63 92	.....	.....
Packing and loading route products.....	307 42	76 04	43 32	30 76	.....	.....
Washing and sterilizing bottles and boxes.....	115 89	31 55	28 75	16 91	.....	.....
Transferred to pasteurizing expense.....	.....	.....	.....	.....	.....	.....
Total expense.....	6,081 56	909 35	713 45	1,020 12	406 63	12,010 15
Unit cost of expense.....	.001035	.005393	.007304	.02105	.003230	6,503 39
Total value and expense.....	\$239,010 01	\$42,807 99	\$21,478 87	\$16,421 83	\$6,364 58	\$6,503 39
Yearly unit cost.....	399177	25388	21991	33871	.050561	.....
Unit cost for December, 1915.....	45238	28082	24533	.....	.....	.....
Unit cost for June, 1916.....	32180	20447	18267	.....	.....	.....
Unit cost for bottles.....	.....	.....	.....	.....	.....	.....

EXHIBIT No. 7

BORDEN'S CONDENSED MILK COMPANY

Statement of Sales (Eastern Branches, including Hartford and Buffalo) Showing Cost of Products, Expenses and Unit Cost,
Fiscal Year 1915-1916

Products	Quantity	Amount of sales	Deductions	Net amount of sales	Unit net amount of sales	Cost of product	Freight
Condensed.....	7,749,528	\$471,918 54	\$1,703 33	\$470,215 21	.08068	\$272,841 33	\$23,406 91
No. 1 cream.....	886,792	52,579 69	281 81	52,297 88	.05897	47,227 41	2,209 18
Route cream.....	3,048,417	296,311 73	897 54	295,414 18	.09630	210,001 66	9,963 04
Extra heavy cream.....	13,296,996	1,739,421 33	6,856 67	1,732,564 71	.03697	1,354,361 94	54,978 67
Fluid milk, raw.....	20,620,627	1,847,988 41	6,765 59	1,841,222 82	.08929	1,048,210 87	191,695 95
Pasteurized "B".....	104,836,840	9,334,577 14	31,881 20	9,302,695 94	.08778	5,512,030 76	936,114 10
Pasteurized "A".....	29,430,920	2,836,530 22	8,979 89	2,827,550 33	.09607	1,546,807 52	290,283 72
Certified.....	2,200,822	329,531 86	584 75	328,946 81	.14935	210,570 47	24,715 79
Buttermilk.....	4,478,301	269,222 18	735 65	268,486 53	.08995	83,513 01	46,519 59
Butter.....	113,373	10,667 49	2,369 63	8,297 86	.07319	5,376 49	470 65
Ice cream.....	3,136,270	166,094 32	7,515 63	158,578 69	.....	103,104 38	.....
Salt butter.....	586,020	243,601 44	3,301 18	1,231,800 26	.39260	1,072,028 57	.....
Unsalt butter, pounds.....	193,436	43,071 07	107 68	42,963 39	.41472	209,869 54	.....
Unsalt butter, one-half pounds.....	391,321	153,759 85	385 97	153,373 88	.....	35,000 75	.....
Eggs.....	39,816	12,709 92	31 78	12,678 14	.39194	113,464 58	.....
Briarcliff cream.....	489,316	78,287 58	197 19	78,090 39	.32003	11,747 19	297 03
Briarcliff fluid.....	46,676	5,757 03	14 39	5,742 64	15959	81,223 29	5,948 96
Briarcliff buttermilk.....	149	74 50	19	5,742 64	12303	175 41	650 01
Briarcliff salt butter.....	5,228	2,615 50	6 54	2,608 96	.49872	80 30	.....
Briarcliff unsalt butter.....	7,143	598 26	1 50	596 76	.49904	2,906 71	.....
Briarcliff cheese.....	131,280	2,834 15	7 09	2,827 06	.08354	100 99	.....
Skim milk.....	31,421	1,020 42	2 55	1,017 87	.02153	1,102 68	675 88
Pot cheese.....	71,686	2,691 50	6 73	2,684 77	.03239	1,781 05	48 43
Sweet condensed.....	22,720	568 00	1 42	566 58	.03745	2,382 06	104 03
Evaporated.....	.....	403 60	1 01	402 49	.02494	426 00	.....
Malted milk.....	73,803	5,350 95	13 88	5,337 07	.....	469 48	.....
Certified cans.....	.....	1,281 48	3 20	1,278 28	.07232	4,284 44	542 45
Crackers.....	.....	.....	.....	.....	.....	311 17	.....
Total.....	.....	\$19,044,114 98	\$73,568 85	\$18,970,546 13	.....	\$11,930,990 05	\$1,588,629 39
.....	.....	100%	.39%	99.62%	.....	62.64%	8.34%

EXHIBIT No. 7 — (Continued)

* Analysis of Route Sale Overhead Expenses

	Payroll	Other expenses	Total	Per cent.
Branch general expense.....	\$213,486 05	\$361,739 23	\$575,226 18	3.02
Branch general repair and maintenance.....	29,396 26	58,048 36	88,444 62	.46
Branch milkroom expense.....	153,585 56	58,118 97	211,702 53	1.11
Branch stable expense.....	225,404 05	513,910 79	739,374 84	3.88
Branch selling expense.....	1,763,581 91	817,025 20	2,570,607 11	13.50
Ice cream distributing expense.....	9,901 16	24,644 87	34,546 03	.18
Route retail stores expense.....	19,558 72	31,002 48	50,561 20	.27
	.....	.....	\$4,270,462 51	22.42

EXHIBIT No. 8

BORDEN'S CONDENSED MILK COMPANY — EASTERN BRANCHES
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and net Profit, Fiscal Year 1915-1916

	Fluid milk	Pasteurized "B"	Pasteurized "A"	Certified
Quantity, quarts.....	20,620,627	104,836,540	29,430,920	2,200,522
Amount or sales.....				
Unit selling price.....	\$1,847,988.41	\$9,234,577.14	\$2,836,530.22	\$329,531.56
Deductions.....	6,765.59	.08808 31,881.20	.09638 8,979.89	.14975 884.75
Net amount of sales.....	\$1,841,222.82	\$9,202,695.94	\$2,827,550.33	\$328,646.81
Net unit selling price.....	.089290	.087781	.096074	.149350
Cost of production.....				
Unit cost of production.....	\$1,048,210.87	\$5,512,030.76	\$1,546,807.52	\$210,570.47
Freight.....	.05083	.05258	.05256	.06569
Unit cost of freight.....	191,695.95	936,114.10	290,288.72	24,715.79
Route sales overhead.....	.00930	.00893	.00986	.01123
Unit cost R. S. overhead.....	495,395.93	2,318,472.80	654,279.67	54,803.98
Advertising expense.....	.02402	.0212	.02223	.02490
Unit cost.....	5,226.89	26,558.35	8,366.90	626.92
Other general selling expense.....	.000284	.000253	.000284	.000285
Unit cost.....	24,225.80	114,672.28	32,869.54	2,636.71
Administrative expense.....	.001174	.001094	.001117	.001207
Unit cost.....	24,020.47	114,489.45	33,050.88	2,653.77
Unit cost.....	.001165	.001092	.001123	.001206
Total cost.....	\$1,788,775.91	\$9,022,337.74	\$2,565,663.23	\$296,027.64
Unit cost.....	.086747	.086061	.087176	.134526
Net profit and loss.....	\$52,446.91	\$180,358.20	\$261,887.10	\$32,619.17
Unit net profit.....	.00254	.00172	.00889	.01482

EXHIBIT No. 8 — (Continued)

BORDEN'S CONDENSED MILK COMPANY — EASTERN BRANCHES

Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Buttermilk	Briarcliff Fluid	Briarcliff buttermilk	Certified cans	Total	Cost and expenses on a per cent basis
Quantity, quarts.....	4,478,301	439,316	46,676	73,803	162,176,705	.....
Amount of sales.....	\$269,222 18	\$78,287 58	\$5,757.03	\$5,350 95	\$14,607,245 07	.....
Unit selling price.....	.06012	.15971	.12333	.07250	.090070	.....
Deductions.....	735 65	197 19	14 39	13 38	49,472 04	.....
Net amount of sales.....	\$268,486 53	\$78,090 39	\$5,742 64	\$5,337 57	\$14,557,773 03	.....
Net unit selling price.....	.059953	.159591	.123032	.072322	.089766	.....
Cost of product.....	\$83,513 01	\$81,223 29	\$175 41	\$4,254 44	\$8,486,815 77	58.30
Unit cost of products.....	.01865	.16599	.0376	.05805	.032333	.....
Freight.....	46,519 59	5,948 96	650 01	.....	1,495,933 12	10.28
Unit cost of freight.....	.01039	.01216	.01393	.....	.....	.....
Route sales overhead.....	113,930 05	12,619 06	799 90	.....	3,650,833 91	25.08
Unit cost route sales overhead.....	.02544	.02579	.01714	.....	.....	.....
Advertising expense.....	1,083 25	156 95	10 59	.....	42,039 35	.29
Unit cost.....	.000242	.000321	.000227	.....	.....	.....
Other general sales expense.....	5,251 10	626 59	41 40	.....	180,364 31	1.24
Unit cost.....	.001172	.001281	.000887	.....	.....	.....
Administrative expense.....	5,154 69	629 78	41 52	.....	180,062 30	1.24
Unit cost.....	.001151	.001286	.000890	.....	.....	.....
Total cost.....	\$255,451 69	\$101,204 63	\$1,718 83	\$4,869 09	\$14,036,048 76	96.43
Unit cost.....	.057041	.206828	.036825	.065974	.086549	.....
Net profit and loss.....	\$13,034 84	\$23,114 24	\$4,023 81	\$468 48	*\$521,724 27	3.57
Unit net profit.....	.00291	.04734	.08621	.00635	.003217	.....

* Net profit.

SCHEDULE 1 OF EXHIBIT No. 8
BORDEN'S CONDENSED MILK COMPANY — UTICA
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Fluid milk	Pasteurized "B"	Pasteurized "A"
Quantity, quarts.....	188,173	103,744	88,366
Amount of sales.....	\$17,023 14	\$9,497 22	\$8,673 68
Unit selling price.....	.090465	.091545	.098154
Deductions.....	56 29	38 16	26 38
Net amount of sales.....	\$16,966 85	\$9,459 06	\$8,647 30
Unit net selling price.....	.090166	.091177	.097855
Cost of product.....	\$9,820 52	\$5,267 84	\$4,685 91
Unit cost.....	.052189	.050777	.053027
Freight.....	1,774 20	913 82	865 28
Unit cost.....	.009429	.008808	.009792
Route sales overhead.....	7,639 28	4,186 65	3,528 29
Unit cost.....	.040597	.040356	.039927
Advertising expense.....	52 91	30 26	25 43
Unit cost.....	.000281	.000263	.000288
Other general selling expense.....	214 91	122 00	103 31
Unit cost.....	.001142	.001185	.001169
Administrative expense.....	212 86	121 73	102 33
Unit cost.....	.001131	.001173	.001158
Total cost.....	\$19,714 68	\$10,643 20	\$9,310 55
Unit cost.....	.104769	.102592	.105361
Net profit.....	\$2,747 83	\$1,184 14	\$663 25
Unit net profit.....	*.014603	*.011415	*.007506

* Loss.

SCHEDULE 1 OF EXHIBIT No. 8 — (Continued)

BORDEN'S CONDENSED MILK COMPANY — UTICA

Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Certified	Buttermilk	Total	Cost and expense on per cent basis	Net loss on other than milk sales
Quantity, quarts.....	21,065	24,722	426,072		
Amount of sales.....	\$3,158.75	\$1,475.95	\$39,828.74		
Unit selling price.....	.149552	.059702	.093479		
Deductions.....	7 90	3 67	132 40		
Net amount of sales.....	\$3,150 85	\$1,472 28	\$39,696 34		
Unit net selling price.....	.149577	.059553	.093188		
Cost of product.....	\$2,019 09	\$468 03	\$22,261 39	56.08	
Unit cost.....	.095850	.018932	.052247		
Freight.....	234 96	251 73	4,039 99	10.18	
Unit cost.....	.011154	.010183	.009482		
Route sales overhead.....	874 14	1,024 56	17,252 92	43.46	
Unit cost.....	.041497	.041443	.040493		
Advertising expense.....	6 39	7 18	122 17	.31	
Unit cost.....	.000303	.000290	.000287		
Other general selling expense.....	25 96	29 18	496 26	1.25	
Unit cost.....	.001232	.001180	.001165		
Administrative expense.....	25 72	28 90	491 54	1.24	
Unit cost.....	.001221	.001169	.001154		
Total cost.....	\$3,186 26	\$1,809 58	\$44,664 27	112.52	
Unit cost.....	.151257	.073197	.104828		
Net profit.....	\$35 41	\$337 30	\$4,967 93	†12.52	
Unit net profit.....	*.001680	*.013644	*.011660		
					{ \$1,320 20 5.85%

* Loss. † Net loss.

SCHEDULE 2 OF EXHIBIT No. 8
BORDEN'S CONDENSED MILK COMPANY — SYRACUSE
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized "B"	Buttermilk	Total	Cost and expense on per cent basis	Net loss or other than milk sales
Quantity, quarts.....	1,048,926	67,089	1,116,015	.....	.....
Amount of sales.....	\$95,825 39	\$4,004 69	\$99,830 08	.....	.....
Unit selling price.....	.091356	.05969	.089460	.....	.....
Deductions.....	242 18	10 01	252 19	.....	.....
Net amount of sales.....	\$95,583 21	\$3,994 68	\$99,570 89	.....	.....
Unit net selling price.....	.091125	.059543	.089221	.....	.....
Cost of product.....	\$55,328 88	\$1,274 74	\$56,603 62	56.85	.....
Unit cost.....	.052748	.01901	.050720	.....	.....
Freight.....	9,155 42	683 49	9,838 91	9.88	.....
Unit cost.....	.008729	.010188	.008816	.....	.....
Route sales overhead.....	32,729 94	2,094 44	34,824 38	34.97	.....
Unit cost.....	.031203	.031219	.031204	.....	.....
Advertising expense.....	312 70	19 95	332 65	.33	.....
Unit cost.....	.000298	.000297	.000298	.....	.....
Other general selling expense.....	1,270 16	81 06	1,351 22	1.36	.....
Unit cost.....	.001211	.001208	.001211	.....	.....
Administrative expense.....	1,258 06	80 26	1,338 35	1.34	.....
Unit cost.....	.001199	.001197	.001200	.....	.....
Total cost.....	\$100,055 16	\$4,233 97	\$104,289 13	104.73	.....
Unit cost.....	.095388	.063110	.093449	.....	.....
Net profit.....	\$4,471 95	\$239 29	\$4,711 24	†4.73	{ \$499 76 1.16%
Unit net profit.....	*.004263	*.003567	*.004228	.....	.....

* Loss. † Net loss.

SCHEDULE 3 OF EXHIBIT No. 8
BORDEN'S CONDENSED MILK COMPANY — HACKENSACK
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Fluid milk	Pasteurized "B"	Pasteurized "A"	Certified
Quantity, quarts.....	1,319,621	833,872	316,881	46,514
Amount of sales.....	\$118,557 69	\$74,292 01	\$31,687 85	\$6,976 91
Unit selling price.....	.089842	.089842	.099996	.15000
Deductions.....	446 66	248 68	79 22	17 44
Net amount of sales.....	\$118,111 03	\$74,043 33	\$31,608 63	\$6,959 47
Unit net selling price.....	.089503	.088794	.099749	.149620
Cost of product.....	\$69,376 82	\$41,552 46	\$16,602 55	\$4,451 96
Unit cost.....	.054573	.049831	.052394	.095712
Freight.....	12,531 58	7,387 53	3,092 48	515 88
Unit cost.....	.009496	.008859	.009759	.011081
Route sales overhead.....	29,315 95	18,105 22	7,296 82	1,075 49
Unit cost.....	.022215	.021712	.023027	.023122
Advertising expense.....	380 00	242 42	96 67	14 19
Unit cost.....	.000288	.000291	.000305	.000305
Other general selling expense.....	1,543 54	985 08	392 66	57 64
Unit cost.....	.001170	.001181	.001239	.001239
Administrative expense.....	1,528 84	975 71	388 92	57 09
Unit cost.....	.001159	.001170	.001228	.001227
Total cost.....	\$114,676 73	\$69,248 42	\$27,870 10	\$6,172 25
Unit cost.....	.086901	.083044	.087952	.132696
Net profit.....	\$3,434 30	\$4,794 91	\$3,738 53	\$787 22
Unit net profit.....	.002602	.003750	.011797	.016924

SCHEDULE 3 OF EXHIBIT No. 8 — (Continued)
 BORDEN'S CONDENSED MILK COMPANY — HACKENSACK
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Buttermilk	Total	Cost and expenses on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	55,122	2,572,010		
Amount of sales.....				
Unit selling price.....	\$3.270 04	\$234,784 50		
Deductions.....	.059324	.091284		
	.08 18	800 18		
Net amount of sales.....	\$3.261 86	\$233,984 32		
Unit net selling price.....	.059175	.090973		
Cost of product.....	\$1.026 23	\$133,010 02	56.85	
Unit cost.....	.018617	.051714		
Freight.....	.565 49	24,082 96	10.30	
Unit cost.....	.010299	.009367		
Route sales overhead.....	1.286 27	57,049 75	24.38	
Unit cost.....	.022791	.022181		
Advertising expense.....	.16 45	749 73	.32	
Unit cost.....	.000298	.000291		
Other general selling expense.....	.06 83	3,045 75	1.30	
Unit cost.....	.001212	.001184		
Administrative expense.....	.06 19	3,016 75	1.29	
Unit cost.....	.001201	.001173		
Total cost.....	\$2.907 46	\$220,964 96	94.44	
Unit cost.....	.054378	.085910		
Net profit.....	\$264 40	\$13,019 36	*5.56	{ \$4,879 75 6.19%
Unit net profit.....	.004797	.005063		

* Profit per cent.

SCHEDULE 4 OF EXHIBIT No. 8
BORDEN'S CONDENSED MILK COMPANY — 180TH STREET BRANCH
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized " B "	Pasteurized " A "	Certified	Buttermilk
Quantity, quarts.....	6,664,478	2,566,966	129,821	151,862
Amount of sales.....	\$584,335 38	\$255,761 35	\$19,473 15	\$9,050 43
Unit selling price.....	.087679	.09636	.15000	.09596
Deductions.....	1,873 65	649 34	53 03	26 44
Net amount of sales.....	\$582,461 73	\$255,112 01	\$19,420 12	\$9,023 99
Unit net selling price.....	.087398	.099383	.149592	.09422
Cost of product.....	\$351,150 90	\$135,477 32	\$12,421 85	\$2,837 04
Unit cost.....	.052690	.052777	.095984	.018681
Freight.....	58,116 94	25,103 85	1,436 51	1,555 42
Unit cost.....	.008720	.009780	.011065	.010242
Route sales overhead.....	134,148 49	55,913 17	2,909 64	3,370 06
Unit cost.....	.020129	.021782	.022413	.022192
Advertising expense.....	1,821 91	764 22	39 58	44 45
Unit cost.....	.000273	.000298	.000305	.000293
Administrative expense.....	7,329 97	3,074 63	159 26	178 82
Unit cost.....	.001100	.001198	.001237	.001178
Other general selling expense.....	7,400 44	3,104 19	160 79	180 53
Unit cost.....	.001110	.001209	.001239	.001189
Total cost.....	\$559,968 65	\$223,437 38	\$17,127 63	\$8,166 32
Unit cost.....	.094022	.087044	.131933	.053775
Net profit.....	\$22,493 08	\$31,674 63	\$2,292 49	\$857 67
Unit net profit.....	.003376	.012339	.017659	.005647

SCHEDULE 4 OF EXHIBIT NO. 8 — (Continued)
BORDEN'S CONDENSED MILK COMPANY — 180TH STREET BRANCH
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Briarcliff fluid	Briarcliff buttermilk	Total	Cost and expense on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	10,977	333	9,524,437		
Amount of sales.....	\$1,730 62	\$65 59	\$870,416 52		
Unit selling price.....	.157659	.196967	.001388		
Deductions.....	4 33	16	2,606 95		
Net amount of sales.....	\$1,726 29	\$65 43	\$867,809 57		
Unit net selling price.....	.157264	.196486	.001114		
Cost of product.....	\$1,779 38	\$1 50	\$503,667 99	58.04	
Unit cost.....	.162101	.004505	.052882		
Freight.....	132 32	4 75	86,349 79	9.95	
Unit cost.....	.012054	.014264	.009066		
Route sales overhead.....	242 84	7 51	196,591 71	22.65	
Unit cost.....	.022123	.022553	.020642		
Advertising expense.....	3 35	10	2,673 61	.31	
Unit cost.....	.000305	.000300	.000281		
Administrative expense.....	13 46	40	10,756 54	1.24	
Unit cost.....	.001236	.001201	.001129		
Other general selling expense.....	13 59	40	10,839 94	1.25	
Unit cost.....	.001238	.001201	.001140		
Total cost.....	\$2,184 94	\$14 66	\$810,899 58	93.44	
Unit cost.....	.199047	.044024	.085140		
Unit profit.....	\$458 65	\$50 77	\$56,909 99	*6.56	{ \$9,203 61 5.29%
Unit net profit.....	.041783	.152462	.005074		

* Net profit per cent.

SCHEDULE 5 OF EXHIBIT NO. 8
BORDEN'S CONDENSED MILK COMPANY — 29TH STREET BRANCH
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized " B "	Pasteurized " A "	Certified	Buttermilk
Quantity, quarts.....	3,989,550	872,686	36,544	133,128
Amount of sales.....				
Unit selling price.....	\$387,442 67	\$87,387 76	\$5,459 16	\$8,045 67
Deductions.....	.09210	.100137	.149380	.060436
	1,326 35	228 06	13 65	20 11
Net amount of sales.....	\$366,116 32	\$87,159 70	\$5,445 51	\$8,025 56
Unit net selling price.....	.091769	.099876	.149013	.090285
Cost of product.....				
Unit cost of product.....	\$210,144 24	\$45,640 51	\$3,495 95	\$2,454 84
Freight.....	.052674	.052299	.095665	.018440
Unit cost of freight.....	34,789 44	8,525 24	405 23	1,371 07
Route sales overhead.....	.008720	.009769	.011089	.010299
Unit cost route sales overhead.....	89,875 31	19,851 70	823 80	3,109 71
Advertising expense.....	.022528	.022748	.022543	.023359
Unit cost.....	1,184 92	265 88	10 92	5 68
Other general selling expense.....	.000297	.000305	.000299	.000043
Unit cost.....	4,813 04	1,079 98	44 36	23 07
Administrative expense.....	.001206	.001238	.001214	.000173
Unit cost.....	4,767 21	1,069 70	43 94	22 85
	.001195	.001226	.001201	.000172
Total cost.....	\$345,574 16	\$76,433 01	\$4,824 20	\$6,987 22
Unit cost.....	.086620	.087585	.132011	.052486
Net profit.....	\$20,542 16	\$10,726 69	\$621 31	\$1,038 34
Unit net profit.....	.005149	.012291	.017002	.007799

SCHEDULE 5 OF EXHIBIT No. 8 — (Continued)
BORDEN'S CONDENSED MILK COMPANY — 29TH STREET BRANCH
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Briarcliff fluid	Briarcliff buttermilk	Total	Cost of expenses on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	15,281	3,566	5,050,755	.....	.....
Amount of sales.....	\$2,519 68	\$487 02	\$471,341 96	.....	.....
Unit selling price.....	.164890	.135573	.093321	.....	.....
Deductions.....	6 30	1 22	1,595 69	.....	.....
Net amount of sales.....	\$2,513 38	\$485 80	\$469,746 27	.....	.....
Unit net selling price.....	.164477	.136230	.093005	.....	.....
Cost of product.....	\$2,521 24	\$12 35	\$264,269 13	56.26	.....
Unit cost of product.....	.164992	.003463	.052323	.....	.....
Freight.....	182 86	49 00	45,322 84	9.65	.....
Unit cost of freight.....	.011966	.013741	.008973	.....	.....
Route sales overhead.....	420 36	125 22	114,206 10	24.31	.....
Unit cost route sales overhead.....	.027509	.035115	.022612	.....	.....
Advertising expense.....	1 77	40 36	1,509 53	.32	.....
Unit cost.....	.00116	.01318	.000299	.....	.....
Other general selling expense.....	7 18	163 92	6,131 55	1.31	.....
Unit cost.....	.000470	.048667	.001214	.....	.....
Administrative expense.....	7 11	162 36	6,073 17	1.29	.....
Unit cost.....	.000465	.045530	.001202	.....	.....
Total cost.....	\$3,140 52	\$553 21	\$437,512 32	93.14	.....
Unit cost.....	.205518	.155134	.086623	.....	.....
Net profit.....	\$627 14	\$67 41	\$32,233 95	*6.86	{ \$3,041 79 5.64%
Unit net profit.....	.041041	.018904	.006382	.....	.....

* Net profit per cent.

SCHEDULE 6 OF EXHIBIT No. 8
BORDEN'S CONDENSED MILK COMPANY — PATERSON
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Fluid milk	Pasteurized "B"	Pasteurized "A"	Certified
Quantity, quarts.....	1,273,765	4,402	124,743	14,140
Amount of sales.....	\$114,040 73	\$396 18	\$11,523 50	\$2,121 00
Unit selling price.....	.089330	.09000	.092378	.15000
Deduction.....	381 98	62 10	51 23	5 30
Net amount of sales.....	\$113,658 75	\$334 08	\$11,472 27	\$2,115 70
Unit net selling price.....	.089230	.075893	.091967	.149625
Cost of product.....	\$64,491 08	\$224 18	\$6,532 11	\$1,353 06
Unit cost of product.....	.050630	.050927	.052365	.095090
Freight.....	11,739 43	39 53	1,220 41	137 00
Unit cost.....	.009216	.008980	.009783	.011103
Route sales overhead.....	31,040 30	103 18	2,652 26	354 83
Unit cost.....	.024369	.023439	.021262	.025094
Advertising expense.....	368 89	1 34	32 11	4 28
Unit cost.....	.000290	.000304	.000257	.000303
Other general selling expense.....	1,498 39	5 45	130 45	17 38
Unit cost.....	.001176	.001238	.001046	.001229
Administrative expense.....	1,484 12	5 40	129 21	17 21
Unit cost.....	.001165	.001227	.001036	.001217
Total cost.....	\$110,622 21	\$379 08	\$10,696 55	\$1,903 76
Unit cost.....	.086846	.086115	.085749	.134636
Net profit.....	\$3,036 54	\$45 00	\$775 72	\$211 94
Unit net profit.....	.002384	.010222	.006218	.014989

SCHEDULE 6 OF EXHIBIT No. 8 — (Continued)

BORDEN'S CONDENSED MILK COMPANY — PATERSON

Statement of Fluid Milk Sales, Showing Cost of Production, Expenses and Net Profit, Fiscal Year 1915-1916

	Buttermilk	Total	Cost of expenses on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	74,693	1,491,743	.....	.....
Amount of sales.....	\$4,478 16	\$132,559 57	.....	.....
Unit selling price.....	.059954	.088862	.....	.....
Deduction.....	11 20	511 81	.....	.....
Net amount of sales.....	\$4,466 96	\$132,047 76	.....	.....
Unit net selling price.....	.059804	.088519	.....	.....
Cost of product.....	\$1,409 45	\$74,009 88	56.05	.....
Unit cost of product.....	.018870	.049613	.....	.....
Freight.....	762 91	13,919 28	10.54	.....
Unit cost.....	.010214	.009331	.....	.....
Route sales overhead.....	1,915 54	36,066 11	27.31	.....
Unit cost.....	.025646	.024177	.....	.....
Advertising expense.....	22 47	429 09	.32	.....
Unit cost.....	.000301	.000288	.....	.....
Other general selling expense.....	91 26	1,742 93	1.32	.....
Unit cost.....	.001222	.001168	.....	.....
Administrative expense.....	90 39	1,726 33	1.31	.....
Unit cost.....	.001210	.001157	.....	.....
Total cost.....	\$4,292 02	\$127,893 62	96.85	.....
Unit cost.....	.057463	.085734	.....	.....
Net profit.....	\$174 94	\$4,154 14	*3.15	{ \$3,041 79 5.64%
Unit net profit.....	.002342	.002785	.....	.....

* Net profit per cent.

EXHIBIT No. 9

BORDEN'S, CONDENSED MILK COMPANY — WEST
Statement of Total Sales, Showing Cost of Products, Expenses and Unit Cost, Fiscal Year 1915-1916

Products	Quantity	Amount of sales	Deductions	Net amount of sales	Unit net amount of sales	Cost of product	Freight
Condensed, plain.....	612,817	\$35,043 36	\$151 49	\$34,891 87	.05694	\$20,273 83	\$997 78
No. 1 cream.....	407,528	25,588 44	241 72	25,346 72	.06220	20,092 86	776 91
Route cream.....	6,818,652	678,041 51	4,020 68	674,020 83	.09884	460,995 44	12,354 05
XX cream.....	407,175	48,192 74	208 48	47,984 26	.11785	36,759 60	680 38
Extra heavy cream.....	36,953	48,425 92	62 27	48,363 71	.14685	6,259 33	240 17
Pasteurized, west.....	34,492,799	2,905,606 96	14,864 17	2,890,742 79	.08381	1,631,907 71	281,114 76
Certified.....	1,106,347	145,435 85	1,402 75	144,033 10	.13010	100,691 08	11,102 39
Buttermilk.....	1,397,263	69,836 04	230 74	69,605 30	.04882	23,218 20	12,541 47
Skim milk.....	1,120,437	19,075 80	48 51	19,027 29	.01698	6,586 18	6,297 71
Salt butter.....	1,522,516	504,241 20	1,261 86	502,979 34	.33036	464,310 81	.....
Sweet butter.....	77,422	30,528 71	76 32	30,452 39	.39333	25,404 27	.....
Sweet butter, one-half pounds.....	2,457	537 07	1 34	535 73	.21804	35,363 93	.....
Eggs.....	151,430	45,912 75	114 78	45,797 97	.30344	.....	.....
Total.....	.....	\$4,516,466 35 100%	\$22,685 05 0.50%	\$4,493,781 30 .....	.....	\$2,832,303 56 62.71%	\$326,105 62 7.22%

EXHIBIT No. 9 — (Continued)
BORDEN'S CONDENSED MILK COMPANY — WEST
Statement of Total Sales, Showing Cost of Products, Expenses and Unit Cost, Fiscal Year 1915-1916

PRODUCTS	*Route sales overhead expenses	Administrative advertising and general expense	Total cost and expenses	Unit cost of expenses	Net profit	Unit net profit	Profit on sales on per cent basis
Condensed, plain.....	\$8,320 02	\$1,002 30	\$30,593 93	.04992	\$4,297 94	.00702	12.32
No. 1 cream.....	6,455 18	740 59	28,095 54	.06887	2,718 82	.00667	10.73
Route cream.....	166,078 54	18,916 08	658,344 11	.09655	15,676 72	.00229	2.33
XX cream.....	9,643 02	1,055 81	48,138 81	.11823	154 55	.00038	.32
Extra heavy cream.....	1,328 05	147 91	7,975 46	.14004	388.25	.00681	4.64
Pasteurized, west.....	828,503 50	94,226 89	2,835,752 86	.08221	54,989.93	.00150	1.90
Certified.....	24,335 13	2,825 01	139,013 61	.12565	5,019.49	.00454	3.48
Buttermilk.....	34,386 22	4,158 90	74,304 79	.05318	4,699.49	.00336	6.75
Skim milk.....	21,261 22	841 59	13,725 48	.01225	5,301.81	.00473	2.79
Salt butter.....	2,249 47	1,985 29	487,557 32	.32023	15,422 02	.01013	3.07
Sweet butter.....	22 24	208 69	27,862 43	.35088	2,559 96	.03345	8.50
Sweet butter, one-half pounds.....	22 24	3 40	27,862 43	.18965	60 77	.02839	13.02
Eggs.....	5,832 74	287 15	41,483 82	.27395	4,314 15	.02849	9.42
				.....	\$100,497 18	.....	2.24
	*\$1,108,475 33	\$126,399 61	\$4,393,284 12	.....	2.24%	.....	.....
	24.54%	2.80%	97.26%				

*** Analysis of Route Sales Overhead Expenses**

	Payroll	Other expenses	Total	Per cent of sales
Branch general expense.....	\$55,847 55	\$50,549 02	\$106,441 57	2.36
Branch general repair and maintenance.....	5,025 22	17,107 70	22,032 92	.49
Branch milkroom expense.....	26,165 20	6,524 65	32,689 85	.72
Branch stable expense.....	45,575 13	114,087 47	159,662 60	3.54
Branch selling expense.....	624,014 65	163,083 74	787,648 39	17.43
			*\$1,108,475 33	24.54

† Net profit per cent.

EXHIBIT No. 10

BORDEN'S CONDENSED MILK COMPANY — WESTERN BRANCHES
Statement of Fluid Milk Sales, Showing Cost of Products, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized, west	Certified	Buttermilk	Total	Cost and expenses on per cent basis
Quantity, quarts.....	34,492,799	1,106,347	1,397,263	36,996,409	.....
Amount of sales.....	\$2,905,606 96	\$145,435 85	\$69,836 04	\$3,120,878 85	.....
Unit selling price.....	.08424	.13146	.04998	.084356	.....
Deductions.....	14,864 17	1,402 75	230 74	16,497 66	.....
Net amount of sales.....	\$2,890,742 79	\$144,033 10	\$69,605 30	\$3,104,381 19	.....
Unit net amount of sales.....	.08381	.13019	.0498	.083910	.....
Cost of product.....	\$1,631,907 71	\$100,691 08	\$23,218 20	\$1,755,816 99	56.56
Unit cost of product.....	.04731	.09101	.01662	.047459	.....
Freight.....	281,114 76	11,102 39	12,541 47	304,758 62	9.82
Unit cost of freight.....	.00815	.01004	.00898	.008237	.....
Route sales overhead.....	828,503 50	24,395 13	34,386 22	887,284 85	28.58
Unit cost route sale overhead.....	.02402	.02205	.02461	.023983	.....
Advertising expense.....	4,110 10	170 05	194 12	4,474 27	.14
Unit cost.....	.000119	.000154	.000139	.000121	.....
Other general selling expense.....	51,959 87	1,555 46	2,445 47	55,960 80	1.80
Unit cost.....	.001506	.001405	.001750	.001513	.....
Administrative expense.....	38,156 92	1,099 50	1,519 31	40,775 73	1.31
Unit cost.....	.001106	.000994	.001087	.001102	.....
Total cost.....	\$2,835,752 86	\$139,013 61	\$74,304 79	\$3,049,071 26	98.21
Unit cost.....	.082213	.125651	.053176	.082415	.....
Net profit.....	\$54,989 93	5,019 49	4,699 49	55,309 93	*1.79
Unit net profit.....	.00160	.00454	.00336	.001495	.....

* Net profit per cent.

SCHEDULE 1 OF EXHIBIT No. 10
BORDEN'S CONDENSED MILK COMPANY — ENGLEWOOD
Statement of Fluid Milk Sales, Showing Cost of Product, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized, west	Certified	Buttermilk	Total	Cost and expenses on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	4,081,915	81,573	127,633	4,291,121	.....	.....
Amount of sales.....	\$343,006 45	\$11,931 54	\$6,377 50	\$361,315 49	.....	.....
Unit selling price.....	.084031	.146268	.049967	.084201	.....	.....
Deductions.....	1,299 85	46 17	20 21	1,366 23	.....	.....
Net amount of sales.....	\$341,706 60	\$11,885 37	\$6,357 29	\$359,949 26	.....	.....
Unit net selling price.....	.083712	.145701	.049809	.083882	.....	.....
Cost of product.....	\$193,293 31	\$7,425 12	\$2,132 34	\$203,850 77	56.36	.....
Unit cost.....	.047354	.091024	.016706	.047272	.....	.....
Freight.....	33,212 34	820 20	1,145 77	35,178 31	9.77	.....
Unit cost.....	.008136	.010055	.008977	.008198	.....	.....
Route sales overhead.....	98,339 82	1,964 85	3,104 75	103,409 42	28.73	.....
Unit cost.....	.024092	.024087	.024326	.024098	.....	.....
Advertising expense.....	512 74	10 07	15 97	538 78	.15	.....
Unit cost.....	.000126	.000123	.000125	.000126	.....	.....
Other general selling expense.....	6,229 49	122 31	194 07	6,545 87	1.82	.....
Unit cost.....	.001526	.001499	.001521	.001525	.....	.....
Administrative expense.....	4,842 25	89 18	131 51	4,772 94	1.33	.....
Unit cost.....	.001113	.001093	.001109	.001112	.....	.....
Total cost.....	\$336,129 95	\$10,431 73	\$6,734 41	\$353,296 09	98.16	.....
Unit cost.....	.082347	.127881	.052764	.082332	.....	.....
Net profit and loss.....	\$5,576 65	\$1,453 64	\$377 12	\$6,653 17	*1.84	\$7,745*04 3.49%
Unit net profit.....	.001366	.017820	.002955	.001550	.....	.....

* Net profit per cent.

SCHEDULE 2 OF EXHIBIT No. 10
BORDEN'S CONDENSED MILK COMPANY — 47TH STREET
Statement of Fluid Milk Sales, Showing Cost of Product, Expenses and Net Profit, Fiscal Year 1915-1916

	Pasteurized, west	Certified	Buttermilk	Total	Cost and expenses on per cent basis	Net profit on other than milk sales
Quantity, quarts.....	3,777,652	92,753	237,464	4,107,869	.....	.....
Amount of sales.....	\$320,951 43	\$13,801 66	\$11,872 39	\$346,025 48	.....	.....
Unit selling price.....	.084959	.148000	.049997	.084381	.....	.....
Deductions.....	1,346 14	50 95	35 15	1,432 24	.....	.....
Net amount of sales.....	\$319,605 29	\$13,750 71	\$11,837 24	\$345,193 24	.....	.....
Unit net selling price.....	.084603	.148250	.049849	.084032	.....	.....
Cost of product.....	\$178,424 96	\$8,444 96	\$3,954 50	\$190,824 42	55.28	.....
Unit cost.....	.047231	.091047	.016653	.048453	.....	.....
Freight.....	30,871 77	934 65	2,130 33	33,936 75	9.83	.....
Unit cost.....	.008172	.010077	.008971	.008261	.....	.....
Route sales overhead.....	95,915 63	2,363 73	6,067 84	104,347 20	30.23	.....
Unit cost.....	.025390	.025484	.025553	.025402	.....	.....
Advertising expense.....	474 36	11 57	29 69	515 62	.15	.....
Unit cost.....	.000126	.000125	.000125	.000126	.....	.....
Other general selling expense.....	5,763 23	140 53	360 73	6,264 49	1.81	.....
Unit cost.....	.001526	.001515	.001519	.001525	.....	.....
Administrative expense.....	4,202 27	102 49	263 03	4,567 79	1.32	.....
Unit cost.....	.001112	.001105	.001108	.001112	.....	.....
Total cost.....	\$315,652 22	\$11,997 93	\$12,806 12	\$340,456 27	98.62	.....
Unit cost.....	.083557	.129353	.053929	.082879	.....	.....
Net profit and loss.....	\$3,953 07	\$7,752 78	\$968 88	\$4,736 97	1.38	\$5,713 71 2.46%
Unit net profit.....	.001046	.018897	.004080	.001153	.....	.....

EXHIBIT No. 11

Statement Showing Appraisal Value of Buildings, Structures, Machinery and Equipment on Ten Specific Factories and Two Pasteurizing Factories — Analyzed Herein

FACTORY	Value of buildings and structure	Rate of depreciation	Amount of depreciation	Value of machinery and equipment	Rate of depreciation	Amount of depreciation
Fort Ann.....	\$14,947 33	3%	\$448 42	\$14,534 74	6%	\$872 08
Hopewell Junction.....	18,513 61	3%	555 41	13,127 22	6%	787 63
Papakating.....	21,053 24	3 1/2%	684 23	14,635 62	6%	878 14
Barton.....	.....	.....	.....	780 44	6%	46 83
Stamfordville.....	19,896 00	3 1/2%	646 62	12,028 58	6%	721 71
Thompson.....	.....	.....	.....	10,911 13	6%	654 67
Ulster.....	.....	.....	.....	6,485 68	6%	389 14
Washington depot.....	15,564 63	3 1/2%	505 85	10,529 15	5 1/2%	579 10
Washingtonville.....	14,905 26	3 1/2%	484 42	8,384 19	5 1/2%	461 13
Copake.....	13,533 83	3 1/2%	439 85	6,000 84	6%	360 05
Total.....	\$118,413 90	.....	\$3,764 80	\$97,417 59	.....	\$5,750 48
DeKalb avenue pasteurizing plant.....	\$104,318 31	1 1/2%	\$1,825 57	\$53,831 53	6%	\$3,229 89
Long Island City pasteurizing plant.....	45,568 58	2 1/2%	1,025 29	57,310 35	6%	3,438 62

EXHIBIT No. 11 — (Continued)
Statement Showing Value of Buildings, Structures, Machinery and Equipment on Various Branches — Analyzed Herein

	Value buildings and structures	Rate of deprecia- tion	Amount of depreciation	Value of machinery and equipment	Rate of deprecia- tion	Amount of depreciation
EASTERN BRANCHES						
Syracuse.....	.....	.....	.....	\$199 67	8%	\$15 97
Utica.....	.....	.....	.....	4,210 21	8%	336 82
Hackensack.....	\$26,929 54	2%	\$538 59	459 15	8%	36 73
29th street.....	21,697 73	1 1/2%	406 83	75 13	8%	6 01
180th street.....	71,831 07	1 1/2%	1,346 83	3,751 49	8%	300 12
Paterson.....	.....	.....	.....	.....	.....	.....
Total.....	\$120,458 34	.....	\$2,292 25	\$8,695 65	.....	\$695 65
WESTERN BRANCHES						
46th street.....	\$44,662 60	2%	\$893 25	\$2,133 41	8%	\$170 67
Englewood.....	30,705 65	2 1/2%	767 64	2,421 20	8%	193 70
Total.....	\$75,368 25	.....	\$1,660 89	\$4,554 61	.....	\$364 37

EXHIBIT No. 12

BORDEN'S CONDENSED MILK COMPANY

Statement of Fluid Milk and Cream Waste for Long Island City and DeKalb Avenue Pasteurizing Plants

	Pasteurized fluid, quart bottles	Pasteurized fluid, pint bottles	Pasteurized fluid, 40-quart cans	Extra heavy cream, quarts	Route cream, quarts
Long Island City					
{ Fluid used, quarts.....	10,810,484	3,443,666	553,514	124,444	43,361
{ Fluid waste, quarts.....	421,224	137,894	21,253	4,169	1,430
{ Per cent of waste.....	3.89	4.01	3.83	3.35	3.32
{ Cream used, pounds.....	.....	.....	.....	296,977	70,563
{ Cream waste, pounds.....	.....	.....	.....	16,334	6,665
{ Per cent of waste.....	.....	.....	.....	5.50	9.45
De Kalb Avenue					
{ Fluid used, quarts.....	23,395,940	6,697,110	1,756,967	542,377	66,433
{ Fluid waste, quarts.....	839,275	242,780	67,971	20,310	2,227
{ Per cent of waste.....	3.58	3.63	3.87	3.74	3.35
{ Cream used, quarts.....	.....	.....	.....	583,754	102,178
{ Cream waste, quarts.....	.....	.....	.....	28,600	4,220
{ Per cent of waste.....	.....	.....	.....	4.90	4.13
Total.....	34,206,424	10,140,776	2,310,481	666,821	109,794
{ Fluid waste, quarts.....	1,260,499	380,674	89,224	24,470	3,666
{ Per cent of waste.....	3.68	3.75	3.86	3.67	3.33
{ Cream used, quarts.....	.....	.....	.....	880,731	172,741
{ Cream waste, quarts.....	.....	.....	.....	44,934	10,885
{ Per cent of waste.....	.....	.....	.....	5.10	6.30

EXHIBIT No. 12 — (Continued)
 BORDEN'S CONDENSED MILK COMPANY
Statement of Fluid Milk and Cream Waste for Long Island City and DeKalb Avenue Pasteurizing Plants

	No. 1 cream, quarts	Raw fluid	Sour cream, quarts	Total
Long Island City				
Fluid used, quarts.....	21,320	47,823	65,802	15,110,414
Fluid waste, quarts.....	835	1,841	2,451	591,106
Per cent of waste.....	3.92	3.85	3.72	3.91
Cream waste, quarts.....	17,696		4,309	389,545
Cream waste, quarts.....	2,196			25,195
Per cent of waste.....	12.41			6.47
De Kalb Avenue				
Fluid used, quarts.....	48,920	125,880	118,892	32,752,519
Fluid waste, quarts.....	1,493	4,325	3,800	1,182,181
Per cent of waste.....	3.05	3.44	3.20	3.61
Cream used, quarts.....	49,233		34,867	770,022
Cream waste, quarts.....	2,829			35,649
Per cent of waste.....	5.75			4.63
Total.....				
Fluid used, quarts.....	70,240	173,703	184,694	47,862,933
Fluid waste, quarts.....	2,328	6,166	6,251	1,773,287
Per cent of waste.....	3.31	3.55	3.38	3.70
Cream used, quarts.....	66,919		39,176	1,159,566
Cream waste, quarts.....	5,025			60,844
Per cent of waste.....	7.51			5.25

EXHIBIT No. 13
BORDEN'S CONDENSED MILK COMPANY
Statement of Fluid Milk Waste for Ten Factories, Fiscal Year 1915-1916

PLANT	Raw fluid, quart bottles	Raw fluid, pint bottles	Raw fluid, 40-quart cans	Pasteurized fluid, quart bottles	Pasteurized fluid, pint bottles
Washington Depot	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	130,454 1,513 1.15	177,068 1,867 1.05	3,639,455 40,673 1.12	...............
Copake.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	227,254 1,530 .67	2,622,229 4,725 .18	...............	...............
Papakating.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Stamfordville.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	..... ..... .....	169,300 1,922 .78	4,779,665 76,551 1.60	796,184 12,998 1.63
Hopewell Junction	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	1,577,304 12,190 .77	783,428 6,304 .80	2,954,100 25,346 .86	225,850 1,806 .82
Barton.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	..... ..... .....	1,442,475 817 .056	...............	...............
Washingtonville...	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	..... ..... .....	2,757,099 17,572 .64	...............	...............
Thompson.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	2,825,961 20,294 .71	725,641 3,849 .53	...............	...............
Fort Ann.....	{ Fluid used, pounds..... Fluid waste, pounds..... Per cent of waste.....	..... ..... .....	..... ..... .....	4,429,818 23,515 .53	...............

Ulster.....	{ Fluid used, pounds.....	1,843,196	352,714	1,438,155	.....
	{ Fluid waste, pounds.....	10,670	1,788	3,192	.....
	{ Per cent of waste.....	.57	.81	.22	.....
Total.....	{ Fluid used, pounds.....	6,604,169	973,546	10,115,395	15,803,038
	{ Fluid waste, pounds.....	46,197	6,270	39,648	166,085
	{ Per cent of waste.....	.69	.64	.39	1.05
					1,022,034
					14,864
					1.45

EXHIBIT No. 13 — (Continued)

BORDEN'S CONDENSED MILK COMPANY
Statement of Fluid Milk Waste for Ten Factories, Fiscal Year 1915-1916

PLANT	Pasteurized fluid, 40-quart cans	Route cream	Extra heavy, half pints	Extra heavy cream, 40-quart cans	Total
Washington Depot	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste.	492,804 5,448 1.11	..... ..... .....	..... ..... .....	4,439,781 49,501 1.11
Copake	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste. . . . .	..... ..... .....	..... ..... .....	..... ..... .....	2,849,483 6,255 .21
Papakating	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste.	341,331 5,593 1.64	..... ..... .....	..... ..... .....	5,917,180 95,142 1.61
Stamfordville	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste.	325,005 2,713 .83	..... ..... .....	..... ..... .....	3,674,255 31,247 .85
Hopewell Junction	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste.	48,177 371 .77	858,065 6,612 .77	617,629 5,438 .88	4,102,890 32,442 .79
Barton	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste. . . . .	..... ..... .....	..... ..... .....	..... ..... .....	1,442,475 817 .056
Washingtonville	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste. . . . .	..... ..... .....	..... ..... .....	..... ..... .....	2,757,099 17,572 .64
Thompson	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste. . . . .	..... ..... .....	..... ..... .....	..... ..... .....	3,954,147 27,098 .68
Fort Ann	{ Fluid used, pounds. Fluid waste, pounds. Per cent of waste.	129,640 802 .62	..... ..... .....	..... ..... .....	4,559,458 24,317 .53

EXHIBIT No. 14

BORDEN'S CONDENSED MILK COMPANY

Statement of Income and Profit and Loss, as of July 1, 1915, to July 1, 1916

Gross sales.....		\$46,512,969 86
Deductions from sales.....		921,956 27
Net sales.....		\$45,591,013 59
Cost of goods sold:		
Production cost of goods sold.....	\$40,789,968 85	
Loss on defective goods.....	58,148 70	
Total.....		40,848,117 55
Gross profit.....		\$4,742,896 04
Selling and administration expense.....		1,678,450 13
Net profit.....		\$3,064,445 91
Other income:		
Interest.....	\$193,232 32	
Refunds.....	105,534 68	
Discounts received.....	127,104 45	
Dividends of affiliated companies.....	36,497 90	
Royalties.....	14,100 75	
Rentals.....	6,511 57	
Profit on investments.....	9,748 45	
Property equipment transactions.....	76,735 96	
Total.....		569,466 08
Gross income.....		\$3,633,911 99
Deductions from other income:		
Discounts allowed.....	\$329,810 46	
Taxes.....	208,169 22	
Insurance.....	64,880 39	
Interest.....	18,992 66	
Farm operations.....	9,626 83	
Total.....		631,479 56
Net income.....		\$3,002,432 43
Profit and loss surplus at beginning.....		3,979,800 27
Adjustment of inventory.....	\$29,696 73	
Adjustment of inter-company accounts.....	3,889 71	
Miscellaneous.....	1,766 00	
Total profit and loss credits.....		35,352 44
Profit and loss gross surplus.....		\$7,017,585 14
Profit and loss charges:		
Loss on disposal of property, equipment, etc.....	\$32,396 11	
Adjustment of book values.....	279,087 00	
Adjustment of interest on inter-company's accounts.....	4,001 22	
Dividends, preferred stock.....	450,000 00	
Dividends, common stock.....	1,704,328 00	
Dividends, profit-sharing.....	115,000 00	
Subscribers' agreements.....	32,000 00	
Transferred to reserves.....	1,129,339 85	
Borden's Condensed Milk Company Employees' Benefit Association.....	5,000 00	
Miscellaneous.....	3,016 23	
Total profit and loss charges.....		3,754,368 41
Profit and loss surplus at end of period.....		\$3,263,216 75

EXHIBIT No. 15

BORDEN'S CONDENSED MILK COMPANY

Balance Sheet as of July 1, 1916

ASSETS		
Property and plant.....	\$1,714,717 83	
Buildings.....	7,819,535 15	
Machinery, tools and equipment.....	5,946,558 28	
Horses, harness and vehicles.....	1,980,700 19	
Furniture and fixtures.....	168,498 84	
Construction (in process).....	295,136 52	
Total.....		\$17,925,146 81
Less reserve for depreciation:		
Buildings.....	\$1,696,928 55	
Machinery, tools and equipment.....	1,888,507 64	
Harness, horses and vehicles.....	793,802 04	
Furniture and fixtures.....	63,253 31	
Total.....		4,442,491 54
Net property and plant.....		\$13,482,655 27
Trade marks, patents, goodwill.....		9,746,279 53
Investments in affiliated companies.....		1,700,526 16
Special fund investments:		
Route salesmen's deposits.....	\$325,960 41	
Insurance.....	650,269 59	
New York State Workmen's Compensation Security Department.....	23,048 50	
Total.....		999,278 50
Securities owned—short term notes.....		3,765 00
Mortgages owned.....		3,000 00
Working and trading assets:		
Finished goods.....	\$927,622 26	
Goods in process.....	334,561 36	
Raw material and supplies.....	2,472,837 71	
Insurance prepaid.....	4,119 43	
Taxes paid.....	41,600 10	
Royalties paid.....	1,205 88	
Contracts and leases paid in advance.....	4,138 04	
Total.....		3,786,084 78
Current assets:		
Cash in banks.....	\$4,775,733 19	
Petty cash funds.....	294,038 60	
Payroll funds advanced.....	57,629 79	
Cash in transit.....	120,399 97	
Total.....		\$5,247,801 55
Accounts receivable:		
Customers.....	\$1,250,230 85	
Claims.....	153,361 93	
Employees.....	26,046 59	
Agents.....	14,642 76	
Borden's Condensed Milk Company Employees' Investment Association.....	15,932 91	
Rents.....	259 79	
Accrued interest.....	15,588 36	
Total.....		1,476,063 19
Certified checks on deposit as security.....		2,157 62
Notes receivable.....		30,073 96
Loans to route salesmen.....		12 00
Due from affiliated companies:		
Borden's Condensed Milk Sales Co.....	\$1,803,952 55	
Borden's Milk Co., Limited.....	448,789 35	
Borden's Condensed Milk Co., Limited..	8,429 86	
Borden's Premium Co., Inc.....	78,994 94	
Borden's Condensed Milk Co. of Utah..	74,260 26	
National Condensed Milk Co.....	17,115 77	
Total.....		2,431,542 73
Dividends receivable from affiliated companies.....		36,497 90
Total current assets.....		9,224,148 95
Deferred suspended assets:		
Funds enclosed in liquidation.....	\$23,582 96	
Accounts awaiting distribution.....	166,814 96	
Total.....		190,397 92
Total assets.....		\$39,136,136 11

EXHIBIT No. 15 — (Concluded)

BALANCE SHEET AS OF JULY 1, 1916 — (Concluded)

LIABILITIES

Capital stock:		
Preferred.....	\$7,500,000 00	
Common.....	21,310,200 00	
Total.....		\$28,810,200 00
Route salesmen's department.....		216,222 74
Current liabilities:		
Accounts payable:		
Invoices.....	\$2,716,479 51	
Claims.....	2,121 53	
Contracts and leases.....	3,084 73	
Unclaimed checks.....	1,634 91	
Income tax withheld.....	210 80	
Due to affiliated companies.....	22,354 66	
Borden's Condensed Milk Company		
Employees' Investment Associa-		
tion.....	4,935 10	
Dividends payable.....	60 00	
Profit sharing distribution.....	110,640 29	
Others.....	271,058 07	
Total.....		\$3,132,579 60
Accrued accounts:		
Route salesmen's commissions.....	\$182,041 27	
Allowances.....	27,270 84	
Interest on route salesmen's depart-		
ment.....	26,019 34	
Taxes.....	55,000 00	
Royalties.....	3,333 34	
Insurance.....	6,000 00	
Others.....	1,656 35	
Total.....		301,321 14
Total current liabilities.....		3,433,900 74
Deferred and suspended liabilities:		
Subscribers' agreements.....	\$147,500 00	
State Compensation Commission.....	1,742 52	
Real estate contracts.....	705 73	
Accounts awaiting distribution.....	1,452 58	
Total.....		151,400 83
Reserves:		
From Operations:		
Credit guarantee.....	\$74,756 55	
Accidents (other than employees)...	57,007 71	
Premium labels.....	107,900 54	
Christmas donations.....	7,938 00	
Total.....		\$247,602 80
From surplus:		
Contingency.....	\$1,000,000 00	
Pensions.....	32,871 99	
Sick benefits and accidents, em-		
ployees.....	64,776 23	
Insurance.....	830,792 28	
Route department extension.....	1,075,396 69	
Other.....	9,755 08	
Total.....		3,013,592 27
Surplus.....		3,261,195 07
Profit and loss surplus.....		3,263,216 73
Total liabilities.....		<u>\$39,136,136 11</u>

EXHIBIT No. 16

BORDEN'S CONDENSED MILK COMPANY — ROUTE DEPARTMENT
(FARM PRODUCTS DIVISION — EAST AND WEST)*Condensed Profit and Loss Statement, July 1, 1915, to June 30, 1916*

Gross sales.....		\$23,925,302 99
Less deductions.....		101,497 92
Net sales.....		<u>\$23,823,805 07</u>
Cost of goods, freight and selling expenses..	\$22,436,146 25	
General selling expenses.....	337,188 60	
General administrative expenses.....	258,863 72	
		<u>23,032,198 57</u>
Net profit.....		<u><u>\$791,606 50</u></u>

SCHEDULE B OF EXHIBIT No. 16

ROUTE FACTORY MANAGERS — EAST

H. A. Cronk, general manager of factories.
D. E. Burrows, clerk.
D. J. Purdy, construction work.
Grant Laidlaw, in charge of construction work.
F. E. Goldsmith, in charge of equipment.
H. K. Lewis.
G. G. Thompson, assistant to Mr. Cronk.
F. H. Wilcox
A. P. Washburn
Geo. Lambrecht
E. Lopray
F. J. Paddock

} District superintendents, most of time in country.

ROUTE SALES MANAGERS — EAST

P. D. Fox, manager of sales.
A. A. Brousse, division superintendent.
W. T. Irwin, in charge of horses and feed.
F. D. Cooper, division superintendent
A. R. Gutierrez, division superintendent.
E. Smethurst, assistant to Mr. Fox.
W. Warnecke, division superintendent in district.
M. L. Voight, division superintendent in district.

IN CHARGE OF RAILROAD TERMINAL PLATFORMS — PLATFORM MEN

Henry Bischoff,	P. Killeen,
G. McGuire,	T. B. Milne,
W. J. Noonan,	J. Salzlein.

VETERINARIAN

J. F. Smith, city man.

ROUTE FACTORIES — EAST

C. D. Pearce,
F. D. Holford,
G. T. Stone,
W. H. Phye,
F. D. Walmsley.

COUNTRY VETERINARIAN

Cassius Way,
John McCartney,
A. H. McClelland.

ICE CREAM

P. A. Brock, in charge of ice cream.

SCHEDULE C OF EXHIBIT NO. 16

MATERIALS USED IN VARIOUS MANUFACTURED ICE CREAMS AND ICES FOR
MONTHS OF JUNE AND JULY, 1916

	Quantity	
	June	July
<i>American Cream</i>		
Homo, quarts.....	43,940	58,520
Sugar, pounds.....	19,298	25,566
Gelatine, ounces.....	11,626	11,868
Lemon whip, ounces.....	6.5	12.5
Bananas.....	.....	.....
Vanilla, ounces.....	5,192	7,412
Strawberry, pints.....	1,904	4,608
Chocolate, pounds.....	976	1,170
Pineapple, pints.....	16	56
Peaches, pints.....	36	62
Green color, ounces.....	4.5	4.5
Walnuts, pounds.....	21	34
Maple syrup, pints.....	6	.....
Sugar, pounds.....	385	580
Red color, ounces.....	28.5	58
Almond mix, pints.....	12	13
Tutti frutti mix, pints.....	5	7.2
Burnt sugar flavor, pints.....	18	57
Maple sugar, pounds.....	1. $\frac{1}{4}$	.....
Strawberry syrup, pints.....	210	.....
Coffee, pounds.....	17	17

French Cream

	June	July
Extra heavy, quarts.....	30	30
Grade "A" milk, quarts.....	58	60
Sugar, pounds.....	48	52
Vanilla beans, ounces.....	8	10
Strawberry, pints.....	8	6
Chocolate, pounds.....	4	4
Egg yolks, doz.....	41 $\frac{3}{4}$	50
Red color, ounces.....	.....	1

Ices

	July	June
Sugar, pounds.....	1,282	1,944
Water, quarts.....	1,186 $\frac{7}{8}$	1,719 $\frac{1}{4}$
Gelatine, ounces.....	68	114
Raspberry, pints.....	8	10
Red color, ounces.....	8	3 $\frac{1}{8}$
Pineapple, pints.....	2	3
Oranges, each.....	.....	.....
Orange whip, ounces.....	25. $\frac{1}{2}$	25
Lemons, each.....	.....	.....
Lemon whip, ounces.....	3	1
Citric sol, ounces.....	69	210
Grape juice, pints.....	1	.....

Puddings

	June	July
Extra heavy cream, quarts.....	4	$\frac{1}{2}$
Sugar, pounds.....	$\frac{1}{2}$	.....
Egg yolks, each.....	49	25
Almond Macs, pounds.....	$\frac{3}{4}$	.....
Maraschino, pints.....	$\frac{1}{8}$	.....

SCHEDULE D OF EXHIBIT NO. 16

BORDEN'S CONDENSED MILK COMPANY

*Branch Managers and Superintendents of All Branches, Factories and
Pasteurizing Plants*

EASTERN BRANCHES	NAME OF MANAGER
34th street.....	F. L. Lewis
117th street.....	C. J. Carstens
St. Place.....	E. F. Newton
DeKalb avenue.....	B. Skidmore
Jersey City.....	E. F. Shanahan
Newark.....	H. J. Badger
180th street.....	T. J. Boyd
Liberty avenue.....	W. Miller
Fort Hamilton avenue.....	E. Bottenus
84th street.....	S. V. Henry
New Rochelle.....	G. Bartels
Mt. Vernon.....	A. Spring
Passaic.....	C. H. Miller
Yonkers.....	Eli DePugh
29th street.....	F. J. Doerner
Montclair.....	H. Bobbe
Manhattan street.....	V. Cutts
Staten Island.....	F. Zurmuhlen
133rd street.....	F. Gale
Tarrytown.....	H. D. Haring
White Plains.....	W. R. McIntyre
Long Island City.....	C. A. Worden
Water street.....	C. A. Fleig
Gravesend avenue.....	J. J. Hardcastle
Downing street.....	C. A. Fleig
North Newark.....	E. Kunst
Union Hill.....	J. H. Edwards
Flushing.....	W. D. Bradburn
Metropolitan avenue.....	J. J. Weaver
Far Rockaway.....	A. A. Spence
Portchester.....	I. I. Mosback
Paterson.....	F. A. Hartman
Hackensack.....	Buchanan
Stamford.....	W. H. DeMill
South Norwalk.....	H. Terry
Asbury Park.....	L. S. Pickel
Elizabeth.....	E. T. Van Sicklen
Rockville Center.....	DeWitt Newton
Bridgeport.....	G. E. Bellows
Albany.....	R. J. Singler
116th street.....	F. Sniffin
Plainfield.....	L. S. Pickel
Troy.....	H. A. Wessell
Jamaica.....	W. Austin
Babylon.....	DeWitt Newton
Roslyn.....	G. Fodell
Ridgewood.....	F. A. Hartman
Utica.....	J. Moak
Syracuse.....	G. Drewitz
Schenectady.....	J. F. Hembdt
Rochester.....	J. F. Cammon
Buffalo.....	A. Hockstra
Hartford.....	A. Scinknecht
Stapleton, S. I.....	J. Daly
Jefferson Market.....	R. Kaht
D. K. I. C. P.....	P. A. Brock

PASTEURIZING PLANTS

	NAME OF MANAGER
DeKalb avenue.....	W. P. Merrill
Jersey City.....	Moscript
Long Island City.....	W. Young
180th street.....	G. F. Popenseik
310 117th street.....	F. E. Curtis
Montreal.....	I. A. Hungerford

WESTERN ROUTE FACTORIES

	NAME OF MANAGER
Alden, Ill.....	D. F. Curtis
Bassets, Wis.....	H. V. Sheloske
Gary Station, Ill.....	F. M. Riskey
Hebron, Ill.....	O. Horton
Lake Geneva, Wis.....	J. J. Reser
Marengo, Ill.....	E. C. Robb
Salem, Wis.....	Robert Gronza
West McHenry, Ill.....	John E. Pufahl
Ridgefield, Ill.....	J. H. Slater
Sycamore, Ill.....	H. P. Paaske
West Chicago, Ill.....	Carl E. Cowles
Woodstock, Ill.....	George L. Tuttle
Virgil, Ill.....	C. Hermance
Wauconda, Ill.....	H. C. Price
Burlington, Ill.....	R. McBride
Englewood, Chicago, Ill.....	R. C. Woodrich

WESTERN CITY BRANCHES

	NAME OF MANAGER
Van Buren street.....	F. C. Miller
Monroe street.....	T. C. Dwyer
Talman avenue.....	C. E. Brickson
Irving Park.....	William C. Mann
Ravenswood.....	G. Anderson
47th street.....	C. E. Richards
24th street.....	E. P. McGinness
Englewood.....	F. Frandsen
103rd street.....	B. L. DuVal
South Chicago avenue.....	E. N. Sawyer
Oak Park.....	J. M. Swanson

BINGHAMTON DIVISION

	NAME OF MANAGERS
Barton.....	G. W. Franklin
Berkshire.....	F. H. Martin
Brisben.....	Gray
Cortland.....	Fay Mott
Deposit.....	G. W. Montgomery
Dryden.....	F. W. Wood
Endicott.....	G. W. Franklin
Lakewood.....	L. E. Fuller
Montrose.....	J. H. Armstrong
Newark Valley.....	F. A. Lawrence
Nichols.....	G. W. Franklin
Oxford.....	Charles I. Stone
Owego.....	C. D. Whitney
Richford.....	James H. Hogan
Thompson.....	E. E. Ely
Ulster.....	W. T. Ryan
Whitney Point.....	E. T. Fancher

CANADA

	NAME OF MANAGERS
Maxville, P. Q.....	H. W. Winter
Orms town, P. Q.....	F. J. Writer

CHATHAM DIVISION

NAMES OF MANAGERS

Ancram, L. M.	Ira C. Whitford
Brewster	C. D. Greenleaf
Canaan	F. N. Glass
Old Chatham	John L. Gray
Chatham	John L. Gray
Cherry Valley	B. J. Wightman
Copake	G. H. Andrews
Craryville	C. W. Smith
Hopewell Junction	Curtis Burnett
Lime Rock	S. H. Frear
Middleburgh	F. P. Betz
Millerton	W. N. Bates
Pine Plains	O. Beckwith
Schoharie	S. L. Way
Sharon Springs	R. C. Berry
Stanfordville	H. S. Broad
Washington Depot	B. H. Hurlburt
Wassaic	H. L. Whitford
Wingdale	W. I. Vermilyea
W. Stockbridge	F. N. Glass

MIDDLETOWN DIVISION

NAMES OF MANAGERS

Branchville	R. W. Dye
Burnside	R. E. Coloin
Cohecton	J. E. Dennis
Florida	Edgar Fall
Goshen	A. M. White
Honesdale	W. S. Curtis
Huntsville	S. H. Mars
Johnsons	H. S. Smith
New Milford	I. M. Roos
Otisville	E. L. Walker
Papakating	F. H. Clayton
Pine Bush	R. E. Beckwith
Pine Island	P. S. House
Sugar Loaf	L. S. Stanton
Wisner	L. S. Stanton
Walkill	J. A. Jansen
Washingtonville	A. H. Oliver

SIDNEY DIVISION

NAMES OF MANAGERS

Afton	A. A. Williams
Delhi	W. D. Macklen
Downsville	L. R. Strong
Edmeston	G. L. Hatchkin
Hamden	W. L. Schwachleimer
Harpersville	G. W. Tilford
Maywood	S. D. Russell
Mt. Upton	J. K. Mallory
Gilbertsville	J. K. Mallory
Otego	B. S. Gray
Papacton	G. A. Brandage
Schenevus	Russell Camden
South New Berlin	A. J. Biglow
South Worcester	John S. Dykeman
Tunnel	R. D. Washburn
West Edmeston	N. S. Holland
Worcester	George Travers
Youngs	A. A. Card

DEER RIVER DIVISION

Altmar	W. J. Fallows
Camden	C. F. Bartlet
Carthage	W. C. Webb
Croghan	H. M. Christian
Delphi Falls	B. F. Larresson
Denley	C. N. Cheeny
Lyon's Falls	Howard Dye
Port Leyden	Frederick Studor
Sterlingville	W. L. Staring
Turin	Th. DeWan

NAMES OF MANAGERS

UTICA DIVISION

Bouckville	J. B. Johnes
Earlville	R. H. Gilson
Fort Ann	F. R. Anderson
Fort Plain	Charles Hansome
Gansevoort	H. Green
Gouverneur	D. L. Stamford
Granville	R. C. Corey
Keenes	D. L. Stamford
Morrisville	J. B. Johnes
Poultney	D. E. Decker
Richfield Springs	H. M. Curtis
Rouse's Point	F. M. Nutt
Solsville	F. J. Hardge
Waterville	W. P. Risley
Westmoreland	W. E. Paddock
West Winfield	G. A. Loose
Whitehall	H. A. Dick

NAMES OF MANAGERS

ALLEGANY DIVISION

Alfred	W. W. Chapman
Almond	H. D. Corey
Attica	W. F. Dye
Bath	Harry Otto
Belmont	H. E. Ostrand
Belvedere	C. H. Dickens
Black Creek	Frederick Williams
Bliss	Edward Way
Cuba	P. D. Wood
Cuba Summit	W. H. Backer
Elm Valley	C. E. Right
Friendship	F. F. Brayton
Hinsdale	George A. Pike
Scio	R. E. James

NAMES OF MANAGERS

CERTIFIED FARMS

Great Barrington, Mass.	Bonnie Brae
Pine Plains, N. Y.	Briarcliff
Bridgenton, L. I.	Carwython
Denmark, N. Y.	Cook Blodgett
Clifton, N. Y.	Hawthorne
Willow Point, N. Y.	Hazard Lewis
Waverhisville, N. Y.	Hungerkill
Mattensberg, N. Y.	Hillcrest
North Stamford, Conn.	Skymadon
Poughquag	Lime Bridge
South Montrose, Pa.	Loudenhill
Avon, N. Y.	Markham Puffer
Johnsonville, N. Y.	St. Croix

NAME OF FARM

BORDEN CERTIFIED FARMS

NAMES OF MANAGERS

A. Chatham	Frank Reid
W. Walkhill	Levy Keyes
C. Earlville	H. Snyder
D. Edmeston	R. L. Sawyer
Goshen Farm	D. F. Jewett

Board of
A. C. ...
W. W. ...
C. ...
D. ...
Gordon ...

REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,

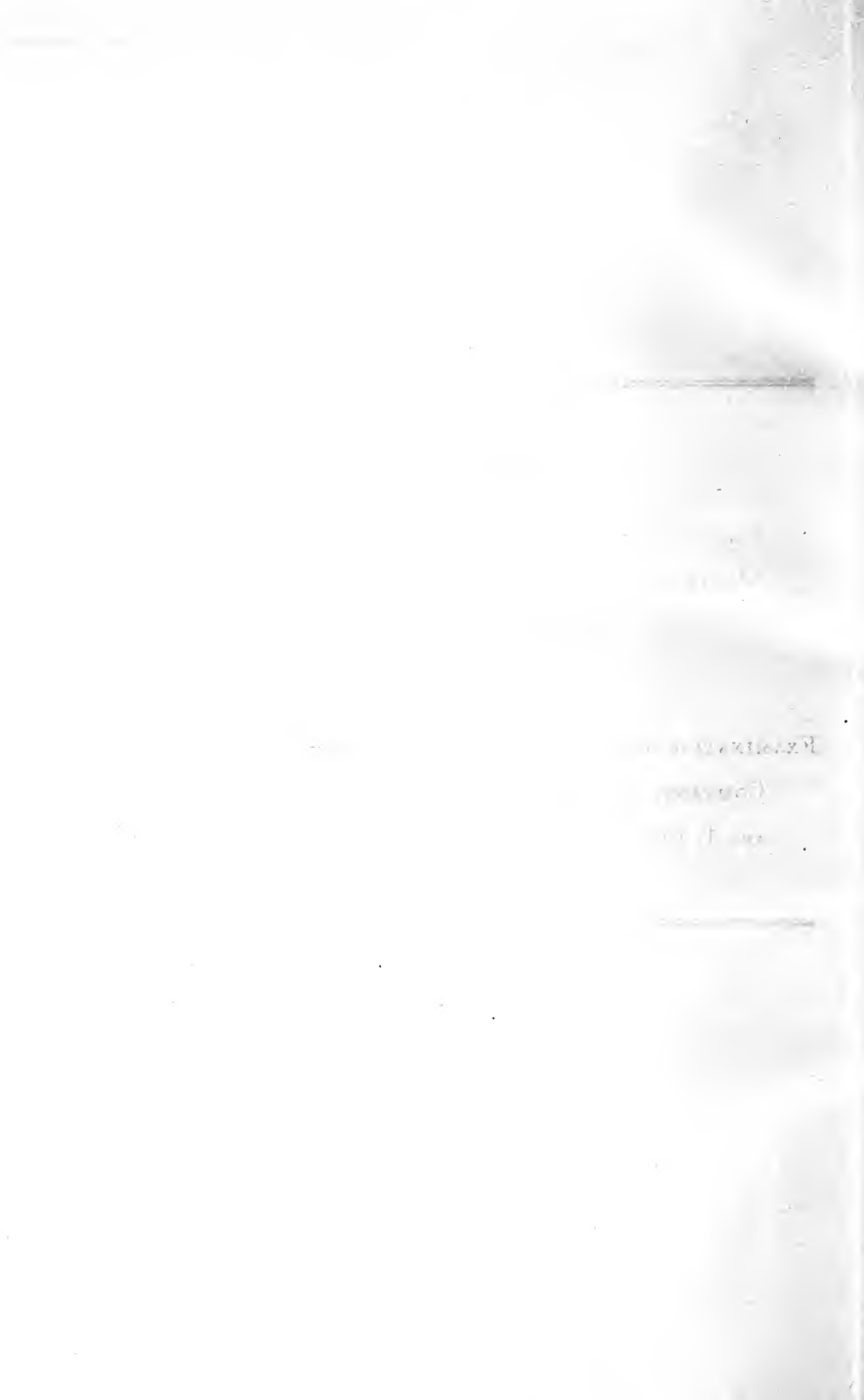
LIVE STOCK AND POULTRY

ON

EXAMINATION OF ACCOUNTS, SHEFFIELD FARMS SLAWSON-DECKER

COMPANY, 347 WEST 57TH STREET, NEW YORK CITY, JANU-

ARY 1, 1915 — DECEMBER 31, 1915



EXAMINATION OF ACCOUNTS, SHEFFIELD FARMS
SLAWSON-DECKER COMPANY, JANUARY 1, 1915 —
DECEMBER 31, 1915

December 2, 1916.

Joint Legislative Committee on Dairy Products, Live Stock and Poultry:

Gentlemen.—Agreeable to your request I have made an examination of the books of account of the Sheffield Farms Slawson-Decker Company of 347 West 57th Street, New York City, and in connection with same I am attaching hereto report, exhibits and schedules showing an analysis of expense distribution in connection with the operation of their business.

Very truly yours,

HERBERT B. HAWKINS,
Certified Public Accountant.

REPORT

The Sheffield Farms Slawson-Decker Company is a corporation with issued and outstanding capital common stock of \$1,000,000 and preferred stock of \$1,495,700.00 conducting a general business in the purchase and distribution of milk on routes and also through a chain of stores. In addition to the milk business conducted in these stores this company also sells a large part of the 1,300,000 pounds of butter which they manufacture and in addition a considerable amount of sundry groceries.

The activities of the company in connection with the operation of farms, and the manufacture of by-products to a greater extent than has been found in most companies heretofore examined, together with the sale of groceries in their stores, as aforesaid, make a definite statement of the cost of producing and distributing milk impossible without a complete re-analysis and examination of every item entering into their records. As an example of the incompleteness of the records, it was impossible to determine the total number of quarts of milk purchased, except by a complete re-analysis of the voucher record, and even upon a re-analysis of same it was found, in a great many instances, that items other than milk, such as freight, ice, feed and charges for pasteurizing expenses, were wrongfully posted therein. It can be said that the same difficulty was encountered in connection with determining the total quarts of milk sold, the same being undeterminable except by an analysis of a Sundry Accounts Receivable Ledger, to which were posted sundry sales to steamboat companies and export sales to Panama, etc.

It is very evident from the foregoing that no attempt has been made in any direction to determine costs for any of the company's activities, and where an analysis of expenses has been made, it invariably has been made incorrectly, as errors in the books hereinafter referred to will show.

In addition to setting up the costs as contained herein, innumerable vouchers were examined and notations made of same, and in connection with these I would call your attention to the following:

Dec. 31, 1915 -- Invoice No. 1828 — Loton Horton.....	\$810.00
Invoice No. 1765 — R. C. Campbell.....	136.00
Dec. 24, 1915 — Invoice No. 915 — E. Bailey.....	150.00
Invoice No. 916 — S. M. Obulinger.....	200.00
Dec. 23, 1915 — Invoice No. 842 — T. B. Evans.....	100.00
Invoice No. 838 — B. J. Young.....	150.00
Dec. 23, 1915 — Invoice No. 751 — T. B. Evans.....	1,425.00
Dec. 17, 1915 — Invoice No. 581 — T. B. Evans.....	<u>1,000.00</u>

These items are for Christmas presents and strike expenses in the case of Mr. Loton Horton, and in connection with other items I would call your attention to remarks on various exhibits attached hereto:

EXHIBIT No. 1

Exhibit No. 1 shows net trading profit on milk of \$329,311.43 or a unit net profit on 135,251,200 quarts of milk purchased of .00243. This is determined after allowing $3\frac{1}{4}$ per cent. profit on all purchases other than fluid milk, the total of which including groceries and cream amount to \$792,727.97. It must be said that this statement is very much clouded by the inclusion herein of store expenses which expense not only includes the cost of selling milk but also includes the cost of selling groceries. If it were possible to determine the amount of sale of milk, cream and butter that was made in the stores, it would be a comparatively simple matter to determine the relative cost of distributing milk in the stores as compared with the cost of distributing it on the route as will be shown in other companies. It will be noted upon examination of Schedule No. 1 supporting this exhibit, that the store sales represent about $13\frac{1}{2}$ per cent of the total sales and this is enough to make the figures contained herein of less value than they ordinarily might be. I would call your attention, under the heading of "Manufacturing Expenses," to the fact that the operations of the farms, ice, the pasteurization expenses in the country and in the city, and also pasteurization expenses of \$10,598.43, which were included originally as a charge to the cost of milk, are all herein included under the heading of "Manufacturing Expenses" although some of these expenses are partly in connection with the production of Farm Products. Pasteurization expenses originally charged to milk is an item for which the Sheffield Farms Slawson-Decker Company paid the William Evans Dairy Company at the rate of twenty-five cents (.25) a can to pasteurize milk and it is

recommended herein that considerable information might be obtained from witnesses who are in a position to testify to the cost of this very important operation. Particularly would I suggest that testimony in connection with the cost of pasteurization be obtained from these witnesses, as in a practical way it will more or less confirm or refute the costs shown in other companies where a theoretical distribution of expenses is made. It is also recommended that the item of waste could be very well determined in instances of this kind where one company having pasteurization of products performed by another would be more particular to determine the returns in connection with any order given.

As referred to aforesaid, the figures obtained for manufacturing expenses are of little value when it is considered that incidental activities are engaged in which are not altogether a part of the production of milk.

The delivery expenses are made on the best information that is obtainable, but no comparison of the cost of efficiency of operation of various branches can be shown without a complete reanalysis and distribution of various expenses contained herein. I would call your particular attention to items of clerks' and canvassers' wages, of \$181,135.46, and testimony in connection with this item might reveal the means by which this company obtains its new business. The store expenses herein are applicable both to the sale of milk and groceries. The milk, as will be shown hereinafter in connection with Exhibit No. 3, is charged to the stores at an arbitrary figure which I believe can easily be proven mere guess work. The profit as shown by the stores account in the general ledger is in excess of the profit as shown by a profit and loss account of their auditors by about \$20,000, and an examination of Exhibit No. 3 contained herein would show that the profits on the stores are very nearly \$18,000 less than either of the aforesaid figures; this notwithstanding the fact that there may be no charge for delivery expenses to the store and no apportionment of company's general administration expenses included in the cost shown. A little study of other reports delivered to you should provide sufficient information for you to prove in your own mind that these charges are erroneous. The administrative expenses contained herein show officers' salaries of \$95,696.78, including an

officer in charge of building repairs. In this connection I would call your attention to Bill No. 242 of June 9, for \$8,000, and Bill No. 755 on June 23, for \$9,000, paid on account of constructing a Long Island City building for the company to Mr. Ralph Horton, presumably the contractor. The special advertising contained herein, \$2,682.22, is an item for charitable advertising. The strike expenses of \$19,706.60 are items payable to detective agencies and in many instances to officers of the company, including T. W. Decker, and Loton Horton in round sums for which no vouchers can be found. In connection with the reserve for bad debts, I would also call your attention to an item of \$14,305, charged to reserve for uncollectable accounts during 1915 which was part of the advances made to a paper bottle company to experiment in paper bottles. This company has also advanced other moneys in connection with the manufacture of these bottles, all of which is supposed to be secured. I would also call your attention to a loan made by H. S. Tuttle to the Pyroform Bottle Company, for \$4,204.85 which was afterwards taken up by the Sheffield Farms Slawson-Decker Company and charged to loans receivable.

The charges for bottles, caps and cans appear to be somewhat higher than similar charges of other companies. The net charges aforesaid for milk purchased, after deducting $3\frac{1}{4}$ per cent. for profits on outside purchases, only leave a net profit of \$329,311.43, while the net profit from all trading operations show a profit of \$355,075.09 to which, when added sundry items of income from other sources, leaves a net profit for the year of \$390,519.30.

EXHIBIT No. 2

The balance sheet of the company includes an investment of \$87,000.00 in the Louvain Construction Company and a good-will item of \$302,243.51. There is also an item of investments amounting to \$479,782.05, details of which are set up in Exhibit No. 2, herein, the principal item of which is contained in the stock of the Sheffield Farms Bi-Product Company. It is recommended herewith in connection with this company that an examination of the books of account of same might reveal information that would be of interest and constructive value to the Committee. In connection with the outstanding capital stock may I

call your attention to the fact that additional issues of this stock were made during the year at a charge of $7\frac{1}{2}$ per cent. for underwriting expenses which might appear to be rather high in view of the regular dividend paying qualities of this stock and it is thought it might be of interest to the Committee to call attention to this fact.

The dividends for the year, as noted herein were six per cent. on the preferred stock and twelve per cent. on the outstanding common stock of \$1,000,000.

I am also attaching hereto Schedule No. 1 of Exhibit No. 2 showing the additions and deductions during the year of plant and property assets.

EXHIBIT No. 3

In connection with this exhibit showing the charges for milk to stores I wish to call your attention to the proven discrepancies that exist on the books of the company showing that there was a net undercharge for milk to the stores department of about \$18,000. I would also call your attention to the high, low and average prices that milk is charged to stores during the year and to recommend to you that the fullest information be obtained as to how these prices are determined upon. It will be noted that grade "A" milk is charged to the stores at an average of less than $7\frac{1}{2}$ cents, the selling price of which is 11 cents. It will also be noted that the charge of certified milk is a little over 9 cents, the selling price of which is 15 cents.

EXHIBIT No. 1

SHEFFIELD FARMS SLAWSON DECKER COMPANY

Unit Cost Statement of Operations Based on 135,251,200 Quarts of Milk Purchased

	Amount	Unit cost	Amount	Unit selling price
Sales			\$10,832,709 40	.08009
Purchase	\$5,082,154 35	.03757		
Freight	938,552 25	.00694		
Manufacturing expense	1,500,245 55	.01109		
Bottles, caps and cans	386,352 16	.00286		
Delivery expense	1,839,162 42	.01360		
Store expense	298,870 62	.00221		
Administration expense	458,060 62	.00339		
Total	\$10,503,397 97	.07766		
Net trading profit	329,311 43	.00243		
	\$10,832,709 40	.08009	\$10,832,709 40	.08009

Sales	\$11,651,201 03
Outside purchase of, \$792,727.97 plus an arbitrary 3½ per cent profit to determine sales of fluid milk purchased, sold as milk, cream, butter, etc., equals	818,491 63
	\$10,832,709 40
Purchase	\$5,874,882 32
Outside purchases of, \$792,727.97 deducted	792,727 97
	\$5,082,154 35

EXHIBIT No. 1-A

SHEFFIELD FARMS SLAWSON DECKER COMPANY

Summary Profit and Loss Account, January 1, 1915, to December 31, 1915

Sales			\$11,651,201 03
Purchases	\$5,874,882 32	.5032%	
Freight	938,552 25	.0804%	
Manufacturing expenses	1,500,245 55	.1285%	
Bottles, caps and cans	386,352 16	.0339%	
Delivery expense	1,839,162 42	.1576%	
Store expense	298,870 62	.0256%	
Administration expense	458,060 62	.0399%	
Total	\$11,296,125 94		
Net trading profit	355,075 09	.0304%	
Total	\$11,651,201 03		\$11,651,201 03
Net trading profit brought down	\$355,075 09		
Additional income	35,444 21		
Net profit	\$390,519 30		

SCHEDULE 1 OF EXHIBIT No. 1-A

SHEFFIELD FARMS SLAWSON DECKER COMPANY

Detailed Statement of Profit and Losses, January 1, 1915, to December 31, 1915

Sales:		
By routes.....	\$9,873,808	63
By stores.....	1,629,234	37
By ice plant.....	67,827	03
By creameries.....	22,384	04
Cullet.....	8,203	92
By products.....	49,743	04
Total sales.....	\$11,651,201	03

	Quarts	Amount
Raw milk purchased.....	132,999,011	\$4,890,170 23
Certified milk purchased....	2,098,390	172,358 01
Brookside milk purchased....	150,079	19,516 51
Buttermilk purchased.....	3,720	111 60
Cream purchased.....	1,000,485	361,605 13
Condensed milk.....		6,646 78
Cheese.....		1,118 35
Merchandise purchased.....		430,919 26
Total.....		\$5,882,443 87
Less increase in inventory.....		7,561 55
Freight.....		\$5,874,882 32
Manufacturing expenses:		938,552 25
Creamery wages.....		\$486,644 36
Fuel.....		127,510 83
Creamery miscellaneous.....		15,021 60
Maintenance and machinery.....		71,347 67
Maintenance and dairy equipment.....		45,884 20
Machine oil.....		6,503 78
Creamery stables.....		3,355 39
Maintenance of country buildings.....		65,595 69
Milk department wages.....		102,195 86
Shipping cases.....		31,225 63
Milk department, miscellaneous supplies expense.....		5,946 73
Certifications.....		7,109 97
Gas and electricity.....		9,146 49
Engine room wages.....		58,347 57
Maintenance city buildings.....		34,216 08
Laboratory expenses.....		11,330 05
Cleansing compounds.....		14,345 33
Refrigerating chemicals.....		4,402 87
Machine shop wages.....		28,722 87
Creamery suits.....		9,251 99
Ice harvest.....		48,000 00
Rent and power.....		13,909 42
Bottle and can brushes.....		3,919 09
Water taxes.....		22,871 02
Farm miscellaneous supplies and expenses.....		1,016 32
Fertilizers.....		2 10
Farm wages.....		5,897 47
Electricity on Hobart farm.....		222 54
Farm feed.....		5,045 11
Farm building repairs.....		19 33
Wagon shop.....		24,245 32
Tin shop.....		12,044 02
Shipping tags.....		757 13
Grain seed.....		182 22
Ice pond, Fitch.....		1,645 97
Ice pond, New Haven Junction and Easton, N. Y.....		1,620 65
Well—Charlotte.....		2,910 00
Light and power plant.....		2,797 45
Depreciation on machinery.....		99,126 85
Depreciation on buildings.....		65,236 56
Fermilac supplies and expense.....		27,303 70
Royalties.....		25,484 97
By-products.....		7,872 16
Hobart farm.....		55 87
Pasteuring expense.....		10,598 43

(Erroneously charged to milk)..... \$1,520,888 66

Less credits:

Increase on inventory.....	\$8,492 93
Sundry rent.....	1,174 16
Franklinville ice pond.....	602 05
Team work Hobart farm..	729 00
Farm product sales.....	9,644 97

\$20,643 11

\$1,500,245 55

Delivery expenses:

Discounts on routes.....	\$54,277 42
Ice purchased.....	20,416 31
Harness repairs.....	2,216 52
Wagon repairs.....	43,132 22
Cartage and horse hire.....	18,387 07
Motor car repairs.....	15,339 19
Motor car expenses.....	10,335 08
Drivers and inspectors' wages.....	1,030,276 92
Stablemen, wages.....	107,727 09
Feed and bedding.....	201,291 55
Shoeing.....	31,907 92
Harness shop.....	9,974 42
Stable miscellaneous supplies and equip- ment.....	13,343 89
Stable rents.....	10,665 00
Drivers' uniforms.....	3,254 75
Clerks' and canvassers' wages.....	181,135 46
Drivers' commissions.....	17,042 85
Creamery packages.....	2,722 30
Depreciation on horses.....	31,588 40
Depreciation on wagons.....	13,374 45
Depreciation on auto trucks.....	15,645 81
Depreciation on harness.....	4,067 44
Depreciation on blankets.....	3,163 41

Total.....\$1,841,285 47

Less increase on inventory.....2,123 05

1,839,162 42

Store expenses:

Store rents.....	\$80,715 92
Store wages.....	147,815 10
Store miscellaneous supplies and wages..	20,943 60
Merchandise department wages.....	2,670 98
Store ice.....	14,646 52
Store gas and electricity.....	7,830 29
Store telephone.....	3,365 91
Store postage.....	1,316 96
Store horse hire.....	2,520 00
Merchandise packages.....	16,746 33
Discounts and allowances.....	299 01

298,870 62

Administration expenses:

Officers' and superintendent's salaries...	\$95,696 78
Telephone and telegraph.....	9,598 10
Printing and stationery.....	11,321 31
Traveling expenses.....	12,781 24
Postage.....	9,384 04
General miscellaneous supplies and ex- penses.....	21,333 55
Watchmen, elevatormen and cleaners...	14,919 30
Advertising.....	38,659 52
Special advertising.....	2,682 20
Employees' Mutual Benefit Association..	950 00
Shortage unsecured.....	607 30
Insurance premiums.....	45,587 44
Legal expenses.....	12,029 54
Pensions.....	1,239 28
Internal revenue.....	651 83
Electric sign—Manhattan street (adver- tising).....	4,965 00
Strike expenses.....	19,607 60
Reserve for depreciation of furniture and fixtures.....	17,517 54
Reserve for bad debts.....	40,530 94
Taxes.....	61,171 63
Interest paid.....	\$43,331 32
Interest earned.....	6,504 89

Interest, net.....36,826 43

458,060 62

Bottles and caps:

Milk bottles	\$141,317 09	
Pint bottles	82,101 41	
Cream bottles	18,933 38	
Milk Federation (bottle exchange)	46,565 29	
Cans	50,804 40	
Milk cans	49,778 31	
Total	\$389,499 88	
Less increase on inventory	3,147 72	
		\$386,352 16
Grand total cost of product and expenses	\$11,296,125 94	
Net trading profit	355,075 09	
		<u>\$11,651,201 03</u>
Net trading profit brought down	\$355,075 09	
Income from rents	5,281 58	
Compensation for damages	1,052 46	
Checks not cashed	276 72	
Interest on deposits	1,131 00	
Anticipated profit on butter	2,603 95	
Dividends on investments	25,098 50	
Net profit	\$390,519 30	

EXHIBIT No. 2

SHEFFIELD FARMS SLAWSON DECKER COMPANY
Balance Sheet as of December 31, 1915

ASSETS, 1915

Good will as per books.....		\$302,436 51
Plant and property (as per books, see Schedule 1).....		4,473,500 78
Hobart farm investment, live stock and farm utensils as per books.....		10,333 74
Investments, book value (as per Schedule 2).....		479,782 05
Louvain Construction Company.....		87,000 00
Inventory and current assets:		
Inventory:		
Creamery products.....	\$43,578 66	
Stores merchandise.....	32,250 88	
By-products.....		
Cullet.....	990 00	
Miscellaneous.....	71 45	
Supplies.....	250,891 38	
Total.....	\$327,782 37	
Butter in storage (at January, 1915, market price).....	39,066 00	
		366,848 37
Current assets:		
Accounts receivable.....	\$517,010 99	
Accounts on collection department.....	9,360 69	
Sheffield By-Products Company.....	1,304 75	
Notes receivable.....	5,613 25	
Rents receivable.....	137 00	
Mortgage loans.....	300 00	
Total.....	\$533,726 68	
Less reserve for doubtful accounts.....	21,000 00	
	\$512,726 68	
Cash:		
In banks.....	\$272,478 64	
In office.....	11,711 20	
Petty cash funds.....	12,770 00	
Total.....	\$296,959 84	
Deposit on meters, etc.....	20 00	
		809,706 52
		<u>\$6,529,607 97</u>

CAPITAL AND LIABILITIES, 1915

Capital stock:		
Common authorized.....	\$1,200,000 00	\$1,000,000 00
Preferred:		
Authorized.....	1,500,000 00	
Unissued.....	337,600 00	1,495,700 00
		\$2,495,700 00
Subscription to new preferred capital stock.....		2,360 00
Mortgages on property owned.....		684,200 00
Current liabilities:		
Accounts payable.....	\$676,745 66	
Notes payable.....	2,000 00	
Drivers' security fund.....	161,177 99	
Accrued interest.....	9,412 78	
Accrued taxes.....	8,999 00	
		858,335 43
Reserves:		
For unrecorded liabilities.....	\$7,000 00	
For accident liability.....	48,460 25	
For ice harvest.....	43,983 54	
For fire insurance.....	37,436 54	
For workmen's compensation liability.....	2,463 13	
		139,343 46
Surplus:		
Balance, December 31, 1914.....	\$2,183,177 78	
Less underwriters' commissions.....	24,750 00	
		2,158,427 78
Net profits for the year.....	390,519 30	
	\$2,548,947 08	
Deduct:		
Dividends on preferred stock, 6%.....	\$79,278 00	
Dividends on common stock, 12%.....	120,000 00	
	199,278 00	
Surplus, as at December 31, 1915.....		2,349,669 08
		<u>\$6,529,607 97</u>

SCHEDULE 1 OF EXHIBIT No. 2

SHEFFIELD FARMS SLAWSON DECKER COMPANY

*Comparative Statement of Plant and Property as at December 31, 1914, and
December 31, 1915*

	December 31, 1914	Additions 1915	Deductions during 1915	Net December 31, 1915
Land.....	\$788,925 00	\$23,457 00	\$275 00	\$812,107 00
Buildings.....	2,164,459 65	214,334 59	65,838 27	2,312,955 98
Fittings and furnishings.....	117,237 65	45,781 89	17,517 54	145,502 00
Machinery and fixed plant.....	747,465 38	86,059 60	99,126 85	734,398 13
Horses.....	203,000 00	60,906 50	39,381 50	224,525 00
Wagons, trucks and sleighs.....	156,960 00	31,428 95	14,856 95	173,532 00
Motor cars.....	33,194 04	17,700 95	16,345 81	34,549 18
Harness.....	25,789 54	4,363 20	2,867 44	27,285 30
Blankets and horse covers.....	8,110 45	3,706 16	3,170 41	8,646 20
Total.....	\$4,245,141 71	\$487,738 84	\$259,379 77	\$4,473,500 78

{ Sales, \$9,659.31 }
 { Dep., 249,720.46 }

SCHEDULE 2 OF EXHIBIT No. 2

SHEFFIELD FARMS SLAWSON DECKER COMPANY

Statement of Outside Investments at December 31, 1915

NAME	Number of shares	Book value
1. Milk Bottlers' Federation.....	5	\$50 00
2. R. R. Milk Shippers and Can Collecting Co.....	5	50 00
3. Dairymen's Manufacturing Company.....	3	240 00
4. Pyraform Bottle Manufacturing Company.....	.....	5,000 00
5. Jensen Creamery Machinery Company.....	50	5,000 00
6. Andes Creamery Company.....	30	3,000 00
7. Sheffield By-Products Company, common.....	107	10,700 00
8. Sheffield By-Products Company, preferred.....	3,750	424,004 55
9. Delhi Co-operative Creamery Company.....	120	15,000 00
10. New York City bonds.....	14 bonds	13,737 50
(\$4,000 Corporation stock, \$10,000 Rapid Transit)		
Howell Condensed Milk Company bonds.....	.....	3,000 00
		\$479,782 05

EXHIBIT No. 3

SHEFFIELD FARMS SLAWSON DECKER COMPANY
Statement of Milk and Cream Credited to Milk Purchases and Charged to Stores

DAIRY PRODUCTS		Unit	Number of units	Average unit price	Highest unit price	Lowest unit price	Amount
" Household " milk.....		Quarts.....	1,626,299	.0606	.065	.055	\$98,710.38
" Household " milk.....		Pints.....	1,339,887	.0313	.035	.03	41,659.30
Grade " A " milk.....		Pints.....	12,277	.0322	.07	.05	41,641.01
Dipped milk.....		Quarts.....	3,092,543	.0311	.06	.045	158,107.91
" P. P. " milk.....		Quarts.....	35,570	.0615	.065	.06	2,137.86
Grade " A " milk.....		Quarts.....	407,353	.0738	.08	.07	30,114.61
Certified milk.....		Quarts.....	53,863	.0916	.10	.09	5,038.83
Brookside milk.....		Quarts.....	1,608	.1342	.14	.13	215.83
Buttermilk.....		Quarts.....	649,749	.03	.03	.03	19,492.68
Cream X.....		Quarts.....	295,907	.3811	.42	.35	112,787.18
Cream XX.....		Quarts.....	9,110½	.4830	.52	.45	4,400.83
Cream, grade " A ".....		Quarts.....	750½	.80	.80	.80	602.20
Cream, sour.....		Quarts.....	73,076	.2435	.25	.20	17,798.40
Condensed milk.....		Quarts.....	4,535	.1661	.18	.15	753.56
Fermilac.....		Splits.....	288,429	.06	.06	.06	17,305.74
Total.....		.....	.....	.....	.....	.....	\$511,175.57

EXHIBIT No. 3 — (Continued)

ERRORS MADE IN CHARGING MILK TO STORES

January, 3,267 quarts " P P " milk charged at 6½ cents	\$2,123 55
January, 3,267 quarts " P P " milk should be	212 35
Net overcharge to stores	<u>\$1,911 20</u>
February, 26,171 quarts buttermilk charged at 3%	\$785 13
February, 26,171 quarts buttermilk should be	668 13
Net undercharge to store	<u>\$117 00</u>
March, 84½ quarts, grade " A " cream charged at 80 cents	\$67 80
March, 84½ quarts, grade " A " cream should be	67 60
Net overcharge to stores	<u>\$0 20</u>

September:

Charges as follows:

Product	Quantity	Rate	Amount
" Household " milk	173,199 quarts	.06	\$10,391 94
" Household " milk	153,662 pints	.03	4,609 86
Grade " A " milk	1,024 pints	.05	51 20
Dipped milk	371,340 quarts	.05	18,567 00
" P P " milk	3,914 quarts	.06	234 84
Grade " A " milk	42,200 quarts	.03	3,376 00
Certified milk	4,192 quarts	.09	377 28
Brookside milk	79 quarts	.14	11 06
Buttermilk	80,719 quarts	.03	2,421 57
Cream X	22,896 quarts	.36	8,242 56
Cream XX	361 quarts	.46	166 06
Cream, grade " A "	16 quarts	.80	12 80
Cream, sour	8,174 quarts	.25	2,043 50
Condensed milk	327 quarts	.16	52 32
" Fermilac "	24,116 splits	.06	1,446 96
			<u>\$52,004 95</u>
Charged in journal No 3, folio 277			32,004 95
Undercharges to stores			<u>\$20,000 00</u>

REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,
LIVE STOCK AND POULTRY

ON

OPERATING, MANUFACTURING AND DELIVERY COSTS OF MILK,
ALEX. CAMPBELL MILK COMPANY, INC., 802 FULTON
STREET, BROOKLYN, NEW YORK, JANUARY 1, 1915 — DE-
CEMBER 31, 1915

OPERATING, MANUFACTURING AND DELIVERY
COSTS OF MILK

October 30, 1916.

*Joint Legislative Committee on Dairy Products, Live Stock and
Poultry, Capitol, Albany, N. Y.:*

GENTLEMEN.— Agreeable to your request I am attaching hereto a report of manufacturing, operating and distributing costs of milk as shown by the records of the Alex. Campbell Milk Company, Inc., of 802 Fulton street, Brooklyn, N. Y.

I am also attaching hereto sundry exhibits and schedules supporting the report, as per index.

Very truly yours,

HERBERT B. HAWKINS,
Certified Public Accountant.

REPORT

ALEX. CAMPBELL MILK COMPANY, INC., 802 FULTON STREET,
BROOKLYN, N. Y.

The Alex. Campbell Milk Company, Inc., is a corporation with an authorized capital of \$500,000, 50 per cent preferred stock and 50 per cent common stock, of which \$250,000 of the preferred stock and \$203,200 common stock has been issued.

This company conducts a general retail milk business through the medium of seven branches operating a total of about two hundred and thirty-four routes, of which the retail business is 92 per cent of their total output, and the figures shown on the various statements herewith would indicate this company to be a fair example from which to judge just what operating and delivery costs should be.

The report as herein contained is for the calendar year 1915, and the figures given show a net profit of \$75,243.11 on total fluid milk purchased.

That the business of this company is mainly the purchase and sale of milk is very plainly shown by the fact that of the total purchases amounting to \$909,529.27, only \$18,000 is for the purchase of by-products. The total quantity of milk purchased for the year amounted to 25,320,596 quarts and the disposition of this product, 75 per cent of which was in the state of fluid milk and 25 per cent in cream and other by-products netted a gross return of .076799 cents per quart.

EXHIBIT No. 1

Exhibit No. 1, attached hereto, shows a net profit of .00297 cents per quart on total quarts of milk purchased and disposed of, either as milk, cream or other by-products, or a net profit on sales of 3.8 per cent. The income from milk purchased is arrived at by allowing a profit of 5 per cent on incidental by-products purchased at a cost of \$18,214.65 as shown by Statement A of Exhibit No. 1. The cost of milk is the actual amount paid for all fluid milk purchased. It is interesting to note in connection with the cost of this milk that the farmer got 46 per cent of the total amount received from the sale of same, or over three and one-half (.031½)

for every quart that he sold. It is also interesting to note that a fine analysis of all operating expense charges in conducting this business shows a delivery cost of 1.7 cents per quart details of which the shown by Schedules 1 to 6 of Exhibit No. 1.

EXHIBITS Nos. 2 and 3

The analysis of charges shown herewith in connection with operating country stations is somewhat clouded by the unreliable records of milk handled at each station. Transfers between stations for whatever convenience may have been afforded in shipping or separating, making cheese, butter, etc., has reduced the value of the unit costs shown because of the apparent incorrectness of net quantities handled at each station. It will be noted, however, that large quantities of over 1,000,000 quarts, even where there is separating and cheese making in connection with the handling of the product, is carried on at a lower unit cost per quart than at some other stations where there is no milk used in by-products but at which there is a smaller quantity handled.

The details of expenses, as shown on Exhibit No. 3, while they are legitimate, do not show the actual costs of operating stations as would be shown, if actual cost records were maintained, and as will be shown in reports of other companies later.

The disproportionate charge in some cases for repairs and renewals and general expenses, are the result of an unscientific distribution of these charges due to poor accounting methods.

The statements herewith will, no doubt, be valuable for comparative purposes.

EXHIBIT No. 4

This company has made some effort in connection with the proper distribution of expenses, to ascertain delivery costs in so far as actual expenses chargeable to each selling branch have been kept. It will be noted that the points of delivery, figured on the retail sales only, show an average cost of 2.4 cents per point, and where the wholesale sales are but 7.8 per cent, the actual unit point cost of delivery is not very much exaggerated.

I would call your attention to a particular phase of this company's business in shipping milk to Hempstead and Rockville Cen-

ter on Long Island, by train, the freight for which is reflected in an increased unit cost per point of delivery of about one cent, although there is a very marked decrease in the actual proportion of wages paid to total branch expenses, as compared with other branches. The difference in the increased unit cost per point of delivery, as shown herewith, and the *actual delivery costs per quart of milk as shown on Exhibit No. 1*, is due of course to the inclusion of all branch expenses on Exhibit No. 5 allowing for actual points delivered only, while *the unit cost per quart on Exhibit No. 1* is reduced because of the assumption that the 25,620,000 quarts of milk purchased was actually delivered.

EXHIBIT No. 5

The statement of quantities of milk and cream sold and prices received for same show an increased cost to the consumer of about one cent (\$.01) per point over the cost to the wholesaler, although in some cases, can milk is supposed to be sold at retail for less than it is sometimes sold wholesale. (See charge for rebates on Exhibit No. 6.)

EXHIBIT No. 6

The profit and loss statement shown herewith has been examined as to the legitimacy of the charges contained therein. It will be noted that a record kept by this company shows rebates of over \$4,000 to the wholesale dealers and gratis milk of over \$5,000.

There is an erroneous procedure adopted by this company of charging profit and loss with depreciation on property and plants instead of maintaining reserve accounts to show the actual amount charged for depreciation. This procedure is carried out also in connection with furniture and fixtures, and other properties. No stock records are maintained of bottles or cans and the inventory set up at the end of the year is an arbitrary one, and the correctness for the charge of bottles, herein, will be better determined by statements of other companies, as they are set up hereafter. An examination of the expense accounts has been made, and also of the accounts, "dues and donations," and nothing therein contained can be considered to have been paid that is not in accord-

ance with proper business practices. The proper charges for items such as advertising will also be better determined by a comparison with other statements.

EXHIBIT No. 7

The balance sheet herewith has not been verified completely as to its correctness. The stocks and bonds and securities include \$500 of the New York Milk Exchange and \$500 of the Dairymens' Manufacturing Company. The dividends of this company show payments of 7 per cent on the preferred stock and 8 per cent on the common stock. Probably \$65,000 of the \$78,000 mortgages payable is held by Alex. Campbell, now the Alex. Campbell estate, on which interest is paid regularly.

In conclusion, if there is any other information in connection with this company's activities that my working papers will reveal, I will be glad at any time to prepare any report that you may request in connection with same.

EXHIBIT No. 1

Statement Showing Return on 25,258,976 Quarts Milk Purchased and Sold Either in the Form of Fluid Milk, Cream, Butter, Cheese or Condensed Milk

	Amount	Amount	Unit costs, expenses	Unit selling price
Sales, as per Statement "A".....		\$1,939,863 14		\$0.076799
Cost of milk.....	\$893,286 59		\$0.035365	
Delivery charges as per schedule I.....	437,687 95		.017328	
Country charges, as per schedule II.....	86,997 66		.003444	
Freight.....	158,174 06		.006262	
Manufacturing expenses, as per schedule III.....	122,462 08		.004848	
Bottles, etc., as per schedule IV.....	51,527 81		.002040	
Administration expenses, as per schedule V.....	72,761 76		.002881	
Branch expenses, as per schedule VI.....	41,722 12		.001652	
Total cost and expenses.....	\$1,864,620 03		\$0.073820	
Net profit.....	75,243 11		.002979	
	\$1,939,863 14	\$1,939,863 14	\$0.076799	\$0.076799

STATEMENT A

Gross sales as per profit and loss statement.....\$1,957,016 55
 Increase in inventory 1,971 97

\$1,958,988 52

purchased and resold costing \$18,214.65..... 19,125 38

Gross income from milk purchased, as per Exhibit No. 1\$1,939,863 14

Total quarts milk purchased..... 25,320,596 quarts

Increase of inventory of \$1,971.07 at average yearly cost per quart equals..... 61,620 quarts

Net quarts of milk included as sold..... 25,258,976 quarts

SCHEDULES 1-6 of EXHIBIT No. 1

SCHEDULE 1

Delivery Charges

Wages.....	\$250,255 21
Freight.....	17,421 60
Feed.....	53,044 43
Harness repairs.....	3,468 54
Wagon repairs.....	12,570 31
Auto repairs.....	1,349 46
Stables.....	5,652 54
Ice.....	5,040 87
Supplies.....	905 42
Miscellaneous expenses.....	10,468 86
Commissions.....	14,578 18
Stationery.....	4,674 09
Hauling wages.....	28,031 10
Auto repairs, hauling.....	5,387 85
Hauling, stable expenses.....	3,594 14
Depreciation charges.....	21,245 35
	<hr/>
	\$437,687 95

SCHEDULE 2

Country Charges

Wages.....	\$34,852 98
Hauling (country).....	8,125 40
Coal.....	5,693 39
Ice.....	8,533 46
Repairs and renewals.....	6,654 89
Rent.....	3,739 64
Supplies.....	1,676 16
Miscellaneous expenses.....	7,268 16
Telephones.....	305 23
Taxes.....	1,500 43
Insurance.....	1,394 80
Depreciation.....	7,253 12
	<hr/>
	\$86,997 66

SCHEDULE 3

Manufacturing Charges

Wages.....	\$55,315 00
Light and power.....	10,416 07
Coal.....	7,224 95
Feed.....	8,877 14
Package sundries.....	570 82
Repairs and renewals.....	9,000 00
Rents.....	3,231 24
Miscellaneous expenses.....	9,649 37
Water taxes.....	1,597 80
Taxes.....	1,816 50
Insurance.....	1,085 26
Butter, cheese and egg expense.....	3,249 66
	<hr/>
	\$122,462 08

SCHEDULE 4

Bottle Expenses and Racks

Racks	\$5,452 82
Bottles	25,859 81
Cans	6,415 92
Caps	9,572 93
Certified caps	1,650 72
Bottle premiums	1,900 61
Bottle federation charges	675 00
	<hr/>
	\$51,527 81
	<hr/>

SCHEDULE 5

Administration Expenses

Clerical salaries	\$7,425 00
Stationery	262 42
Advertising	9,654 16
Expenses	5,350 70
Traveling	2,038 99
Dues and donations	1,515 80
Interest	4,998 21
Taxes	2,163 61
Insurance	6,239 85
Compensation insurance	210 61
Depreciation on furniture	910 57
Sundries	522 34
Bad accounts	5,244 58
Officers' and executive salaries	26,224 92
	<hr/>
	\$72,761 74
	<hr/>

SCHEDULE 6

Branch Expenses

Salaries	\$10,868 00
Light and power	3,513 60
Coal	638 96
Repairs and renewals	2,237 63
Rent	4,027 19
Telephone	2,520 27
Taxes	1,883 36
Insurance	1,921 51
Rebates	4,012 51
Gratis milk	5,353 57
Route waste	1,786 80
Allowances	3,058 72
	<hr/>
	\$41,822 12
	<hr/>

EXHIBIT No. 2

Statement, Showing Quantities and Cost of Milk at Country Stations, Also Expenses Incidental to Handling Same.

STATION	Wages	Rent, repairs, taxes and expenses	Cost of milk	Total cost of milk at creamery	Total quantity of milk purchased at station	Milk used for butter, cheese, cream and condensed	Quantity shipped to be sold as milk	Unit cost of milk and expenses
Allamuchy.....	\$ 1,217 40	\$937 11	\$29,630 58	\$31,785 09	Quarts 839,950	Quarts 839,950	Quarts 839,950	.03784
Baleville.....	1,549 75	2,111 54	53,039 10	56,700 39	1,422,324	1,422,324	1,422,324	.03986
Beaver Falls.....	1,535 00	1,894 64	36,381 41	38,811 05	1,066,057	1,066,057	1,066,057	.03641
Boonville.....	2,005 00	1,412 91	55,813 50	59,231 41	1,708,027	1,708,027	1,708,027	.03468
Candor.....	960 00	1,159 04	17,352 76	19,471 80	523,756	523,756	523,756	.03178
Gulf Summit.....	1,846 26	2,660 33	29,121 66	33,628 25	843,414	843,414	843,414	.03957
Hackettstown.....	1,144 00	1,275 39	18,509 11	20,928 50	542,268	542,268	542,268	.03859
Lake Ariel.....	869 15	1,845 67	12,380 80	14,095 62	366,314	366,314	366,314	.03848
Langdon.....	540 00	657 78	9,292 32	10,490 10	263,365	263,365	263,365	.03983
Lowville.....	4,956 37	2,820 96	114,845 48	122,622 81	3,365,174	3,365,174	3,365,174	.03643
Monroe.....	2,893 00	2,744 63	21,260 59	24,898 22	611,273	611,273	611,273	.04073
New Bremen.....	2,673 58	2,386 85	75,508 73	80,569 16	2,235,155	2,235,155	2,235,155	.03604
Oxford.....	1,154 51	1,656 71	32,879 01	35,690 23	922,673	922,673	922,673	.03868
Salem.....	2,154 47	2,937 42	48,489 22	53,641 11	1,389,820	1,389,820	1,389,820	.03859
Schuyl'er Junction.....	1,060 75	2,521 26	50,844 60	55,326 61	1,576,869	1,576,869	1,576,869	.03508
Starucca.....	1,581 25	1,672 46	47,542 71	50,798 42	1,356,079	1,356,079	1,356,079	.03746
Starucca.....	2,896 17	†11,130 49	63,698 77	77,745 43	2,040,093	2,040,093	2,040,093	.03811
Arcadia.....	1,737 00	1,950 60	48,075 03	51,763 28	1,480,346	1,480,346	1,480,346	.03496
Apulia.....	1,047 22	1,798 34	12,287 41	14,132 97	322,563	322,563	322,563	.04381
Holland.....	642 00	812 37	9,028 36	10,482 73	267,638	267,638	267,638	.03916
Chaffee.....	.....	.....	.....	5 00	.....	.....	.....	.....
Gravety.....	.....	5 00	.....	5 00	.....	.....	.....	.....
Fabius.....	975 00	928 97	25,684 82	27,588 79	827,926	827,926	827,926	.03135
Pompey.....	515 10	491 09	12,360 28	13,366 47	394,228	394,228	394,228	.03905
Totals.....	†\$34,852 98	†\$44,891 56	\$824,026 90	\$903,771 44	24,365,302	6,848,021	17,517,281	.03709

* Includes inter-station transfers.

† Includes hauling charges, \$8,125.40.

‡ As per Exhibit No. 3.

EXHIBIT No. 3

Statement Showing Analysis of Expenses at Country Milk Stations Summarized Under Exhibit 2

STATION	Coal	Miscellaneous expense	Ice	Insurance	Rent	Repairs and renewals	Supplies	Wages	Taxes	Telephones	Hauling	Total
Allamuchy.....	\$210 00	\$42 06	\$315 80	\$17 80	\$300 00	.....	\$51 36	\$1,217 40	.....	.....	.....	\$2,154 51
Baleville.....	231 56	555 01	600 99	57 72	25	\$502 81	97 57	1,549 75	\$45 63	.....	.....	3,681 29
Beaver Falls.....	107 43	80 41	53 90	8 98	420 00	162 23	61 69	1,535 00	.....	.....	.....	3,429 64
Boonville.....	137 91	204 56	.....	17 65	852 72	137 24	71 68	2,003 00	.....	\$21 05	.....	3,417 91
Candor.....	138 63	267 24	415 76	95 75	.....	69 65	52 14	1,960 00	87 87	12 00	.....	2,119 04
Gulf Summit.....	538 79	739 14	720 42	90 78	.....	378 73	83 20	1,846 26	59 27	.....	.....	4,506 69
Hackettstown.....	117 90	144 24	595 48	63 80	.....	241 09	34 88	1,144 00	77 00	.....	.....	2,419 39
Lake Ariel.....	180 14	216 18	170 00	33 82	.....	122 30	67 60	869 13	43 00	12 63	.....	1,714 82
Langdon.....	156 40	72 95	287 56	10 75	.....	55 48	15 88	540 00	58 76	.....	.....	1,197 78
Lowville.....	419 65	368 29	773 65	80 20	800 00	183 88	175 42	4,956 37	.....	29 97	.....	7,777 33
Monroe.....	254 48	391 87	884 91	88 70	.....	607 80	50 21	893 00	389 57	77 09	.....	3,637 63
New Bremen.....	314 91	326 16	646 80	103 95	.....	745 49	130 05	2,673 53	103 59	15 90	.....	5,060 43
Oxford.....	457 41	187 64	152 42	84 00	.....	596 58	81 48	1,154 51	97 18	.....	.....	2,811 22
Salem.....	753 32	628 60	363 14	91 60	426 67	564 48	78 73	2,154 47	54 17	36 71	.....	5,151 89
Schuyler Junction.....	238 74	444 71	889 33	58 00	240 00	441 86	150 81	1,960 75	22 76	35 05	.....	4,482 01
Starucca.....	301 99	69 76	15 33	25 88	660 00	500 83	98 67	1,581 25	.....	.....	.....	3,253 71
Arcadia.....	285 37	544 07	668 03	124 89	7 00	1,150 75	128 96	2,806 17	82 37	34 45	\$8,125 40	14,046 66
Apulia.....	338 95	336 54	209 39	64 37	.....	223 77	155 29	1,737 00	184 68	15 00	.....	3,687 60
Holland.....	63 16	336 43	209 39	64 87	.....	.....	36 39	1,047 22	67 10	.....	.....	1,845 56
Chaffee.....	29 55	456 45	168 96	64 87	22 00	.....	47 00	642 60	18 05	.....	.....	1,454 37
Gravety.....	.....	.....	.....	.....	5 00	.....	.....	.....	.....	.....	.....	5 00
Rabus.....	211 84	481 13	10 50	109 74	.....	44 33	.....	975 00	56 05	15 38	.....	1,903 97
Pompey.....	65 36	327 72	.....	87 48	.....	.....	7 15	515 10	53 38	.....	.....	1,006 19
Totals.....	\$5,693 39	\$7,268 16	\$8,533 46	\$1,394 80	\$3,739 64	\$6,654 89	\$1,676 16	\$34,852 98	\$1,500 43	\$305 23	\$8,125 40	\$79,744 54

EXHIBIT No. 4

Statement of Branch Operating Selling and Delivery Costs Showing Percentage and Unit Cost Statistics, Alex. Campbell Milk Company 802 Fulton Street, Brooklyn, N. Y.

BRANCHES	Wages	Clerical	Harness, wagon repairs, stable and feed	Rent, sundry expenses including taxes, etc.	Commissions, bonuses, all waste suspense	Percentage of wages to delivery costs	Total branch expenses
Brooklyn.....	\$56,155 24	\$3,120 00	\$18,666 49	\$14,936 29	\$6,616 27	.5644	\$99,494 29
Fiatbush.....	44,570 75	2,340 00	11,425 56	8,526 06	4,037 97	.6286	70,900 34
Richmond Hill.....	35,139 79	936 00	11,126 89	5,237 88	3,260 97	.6219	55,701 53
East New York.....	35,853 09	1,040 00	9,304 75	2,981 26	2,256 39	.6970	51,435 49
Hempstead and Rockville Center.....	31,747 46	1,404 00	11,416 00	*24,950 88	3,718 27	*.4334	73,236 61
Coney Island.....	21,258 41	988 00	4,155 96	3,162 90	2,921 52	.6537	32,486 79
Flushing.....	25,530 47	1,040 00	7,575 16	3,289 09	2,052 00	.6465	39,486 72
Totals.....	\$250,255 21	\$10,868 00	\$73,670 81	\$63,084 36	\$24,863 39	.5919	\$422,741 77

* Includes freight on milk shipped by train from Brooklyn to Hempstead and Rockville Center Stations.

† Does not include sundry sales and shipments made direct to customers from country stations.

EXHIBIT No. 4 (Continued)

BRANCHES	Wholesale sales	Retail sales	Per cent of wholesale sales	Per cent of retail sales	Number of routes	Average cost per route	Number of retail points delivered	Unit cost per point
Brooklyn.....	\$74,736 52	\$457,286 11	.1405	.8595	60	\$1,658 23	4,639,952	.0214422
Flatbush.....	15,499 00	314,462 46	.0470	.9530	42	1,688 10	3,924,155	.0219003
Richmond Hill.....	9,139 16	225,256 07	.0390	.9610	33	1,687 92	2,387,958	.0233260
East New York.....	11,122 80	204,908 60	.0515	.9485	32	1,607 86	2,170,006	.0237029
Hempstead and Rockville Center.....	4,383 21	212,425 82	.0203	.9797	24	3,051 52	2,115,344	.03462
Coney Island.....	23,377 55	126,781 96	.1557	.8443	21	1,547 00	1,158,778	.0280354
Flushing.....	4,775 56	142,649 20	.0324	.9676	22	1,794 85	1,431,601	.0275823
	†\$143,033 80	†\$1,683,770 22	.0783	.9217	234	\$1,806 59	17,127,796	.0246816

* Includes freight on milk shipped by train from Brooklyn to Hempstead and Rockville Center stations.

† Does not include sundry sales and shipments made direct to customers from country stations.

EXHIBIT No. 5

Statement Showing Quantities of Various Grades of Milk Sold, Wholesale and Retail, and Prices Received for Same

PRODUCT	RETAIL		WHOLESALE	
	Quantity	Selling price	Quantity	Selling price
Grade A, quarts.....	533,164	\$0.11	4,669	\$0.10
New Era, quarts.....	518,442	.10	61	.09
Pasteurized, quarts.....	29,649	.09	1,045,303	.08
	11,895,913			
Pasteurized, pints.....	1,838,895	.10	262½	.08
Certified, quarts.....	524,977	.15	39,376	.12
Cream, jars.....	1,205,473	.14	154,022	.13
Condensed, jars.....	88,042	.08	3,227	.07
Buttermilk, quarts.....	359,817	.06	18,272	.05
Pasteurized, quarts.....	162,771	.10	.....	.....
Grade A, quarts.....	2,610	.09	.....	.....
Can milk, quarts.....	58,450	.07½	163,837	.06½
Can milk, quarts.....	380,331	.05½	89,348	.07
Can milk, quarts.....	.....	.....	86,531	.06
Can milk, quarts.....	.....	.....	24,372	.08
Can milk, delivered from country station to consumer....	.....	.....	198,159	.048
Certified milk, delivered from country station to consumer.	.....	.....	708	.10

EXHIBIT No. 6

Trading and Profit and Loss Statement January 1, 1915, to December 31, 1916

Total sales..... \$1,957,016 55
 Less

Route waste..... \$1,786 80
 Rebates..... 4,012 51
 Gratis milk..... 5,353 57

11,152 88

Total net sales..... \$1,945,863 67

Purchases

Inventory December 31,
 1914..... \$6,832 84
 Fluid milk, quarts..... 835,638 92
 Certified milk, quarts..... 57,647 77
 Cream..... 14,252 19
 Condensed milk..... 3,626 50
 Butter..... 335 96

Total..... \$918,334 18

Less inventory, December 31,
 1915..... 8,804 81

Total net purchases..... 909,529 27

Trading profit..... \$1,036,334 40

Operating expenses and losses:

Wages..... \$387,990 72
 Freights..... 175,595 66
 Hauling "Arcade"..... 8,125 40
 Light and power..... 13,929 67
 Coal..... 13,557 30
 Feed..... 61,921 57
 Harness repairs, etc..... 3,468 54
 Wagon repairs and maintenance... 12,570 31
 Auto repairs and maintenance... 6,737 31
 Stable..... 9,246 68
 Racks..... 5,452 82
 Bottles..... 25,859 81
 Cans..... 6,415 92
 Caps..... 9,572 93
 Certified caps..... 1,650 72
 Package sundries..... 570 82
 Ice..... 13,574 33
 Repairs and renewals..... 17,892 52
 Rent..... 10,998 07
 Supplies..... 2,581 58
 Bottle premiums..... 1,900 61
 Miscellaneous expenses..... 27,286 39
 Cheese expense..... 1,807 68
 Butter expense..... 198 55
 Water taxes..... 1,597 80

\$820,503 71

EXHIBIT No. 6 (*Continued*)

General expenses:		
Salaries.....	\$26,224 92	
Commissions.....	14,578 18	
Telephones.....	2,825 50	
Stationery.....	4,936 51	
Advertising:		
Moving pictures, etc..	\$1,134 90	
Newspapers, periodicals.....	4,098 48	
Literature and pamphlets.....	2,127 78	
Signs and novelties...	1,593 25	
Programmes and sundries.....	699 75	
	<hr/>	9,654 16
Miscellaneous expense.....	5,350 70	
Traveling.....	2,038 99	
Dues and donations.....	2,190 80	
	<hr/>	67,799 76
Total.....		\$888,303 47
Income charges:		
Interest.....	\$4,998 21	
Taxes.....	7,363 90	
Insurance.....	10,641 42	
Allowances.....	3,058 72	
Accounts rev. written off.....	5,244 58	
Compensation insurance expense.....	210 61	
	<hr/>	31,517 44
Depreciation:		
City property and plants.....	\$10,428 27	
Creamery property and plants.....	7,243 12	
Wagons, trucks, sleighs, auto, etc...	9,570 35	
Horses.....	7,345 00	
Furniture and fixtures.....	910 57	
	<hr/>	35,507 31
Loss items:		
Horses by death.....	\$3,505 00	
Horses by sale.....	825 00	
1914 sundries.....	522 34	
	<hr/>	4,853 34
Grand total.....		<hr/> \$960,180 56
Net income.....		\$76,153 84
Other income:		
Dividends, Dairymen's Mfg. Co.....	243 00	
Hauling National Milk Sugar Co.....	49 05	
	<hr/>	292 05
Net profit.....		\$76,445 89
Dividends, preferred stock, 7 per cent..	\$17,500 00	
Dividends, common stock, 8 per cent....	15,316 00	
	<hr/>	\$32,816 00
Surplus, January 1, 1915.....		52,138 21
Surplus, December 31, 1915.....		95,768 10
	<hr/>	
Total.....	\$128,584 10	\$128,584 10

EXHIBIT No. 6 — (Concluded)

ALEXANDER CAMPBELL MILK COMPANY CONDENSED BALANCE SHEET

January 1, 1916

ASSETS		LIABILITIES	
City property and plant.....	\$402,498 89	Preferred stock.....	\$250,000
Country property and plant and equip- ment.....	105,400 00	Common stock.....	203,200
Delivery equipment, etc.....	116,143 18		
Total properties plant and equip- ment.....	\$624,042 07	Total capital stock outstanding.....	\$453,200 00
Stocks, bonds and securities.....	6,032 31	Mortgages payable.....	78,000 00
Working and trading assets.....	50,616 48	Current liabilities and accruals.....	144,184 08
Current assets:		Drivers' security and locker deposits.....	37,441 28
Cash.....	\$40,589 50	Surplus, January 1, 1916.....	95,768 10
Accounts receivable.....	87,313 10		
Total current assets.....	127,902 60		
Total assets.....	\$808,593 46	Total liabilities, capital and surplus.....	\$808,593 46

The following is the report of the auditor as to Clover Farms, Inc.:

REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,

LIVE STOCK AND POULTRY

ON

PRODUCTION, OPERATING AND DISTRIBUTING COSTS OF MILK —

CLOVER FARMS, INC., 534 WEST 48th STREET, NEW YORK

CITY, JULY 1, 1915, TO JUNE 30, 1916

[513]

PRODUCTION, OPERATING AND DISTRIBUTING
COSTS OF MILK

December 4, 1916.

*Joint Legislative Committee on Dairy Products, Live Stock and
Poultry:*

GENTLEMEN.— Agreeable to your request I have made an examination of the books of account of the Clover Farms Company, Inc., No. 534 48th street, New York city, with special reference to the operating, manufacturing and distributing costs of milk for the period of July 1, 1915–June 30, 1916, and I am attaching hereto report and remarks in connection with various exhibits supporting same.

Very truly yours,

HERBERT B. HAWKINS,

Certified Public Accountant.

REPORT

December 4, 1916.

Joint Legislative Committee on Dairy Products, Live Stock and Poultry:

GENTLEMEN.—The Clover Farms Company, Inc., is a corporation with authorized capital stock of \$250,000, of which there was outstanding on June 30, 1916, \$173,000.

An analysis of the accounts of this company affords a most exceptional opportunity of showing costs, of the production and distribution of fluid milk, particularly as this company has three different avenues of distribution, namely: on routes, in stores and at Board of Health stations, in the boroughs of Manhattan and Brooklyn. It might be said at the outset that this latter avenue of distribution affords one of the most striking instances of how economically milk can be distributed, in contrast to the luxurious and consequently expensive delivery service that is maintained by milk dealers in general in this city.

It will be noted that this company spends a very large sum for advertising purposes, and in addition, particular attention is called to the charges to cost for depreciation made during the last fiscal year, and also the additional charges to costs, for repairs and replacements, both of which, in total, amount to over 25 per cent of the book value of the assets as shown on July 1, 1915.

No particular method of costs has been adopted in connection with their records, although in contrast to other companies, some effort has been made to distribute expenses, first against products, and subsequently the cost of said product to the various avenues of distribution.

Sufficient tests were made in the examination of expenses charged to costs, and no exception can be reasonably made to any of them except as hereinafter noted.

EXHIBIT No. 1

Statement referred to herewith is a reconstructed statement of unit costs, after deducting an erroneous charge to costs for depreciation of \$6,273.77, details of which are supported in Exhibit No. 3 hereinafter referred to. It will be noted that the net profit on every quart of milk of .0024 as shown on Exhibit No. 1, referred to, is approximately on an average with that of other companies, although a more scientific charge for replacement expenses, repairs and depreciation as aforesaid would undoubtedly increase this unit cost considerably. It will be noted that the average selling price herewith is somewhat lower than that obtained by most companies and this is no doubt correct, due to the fact that a great part of their Grade "A" milk is sold at .08 per quart. The administrative and advertising expenses are proportionately high and your attention is called to the details of same in Exhibit No. 6.

The net per cent of profit on sales of 3.14 per cent is in accordance with the unit profit of each quart of milk, somewhat below average, subject, however, to the qualifications as above stated.

EXHIBIT No. 2

An analysis of costs, based on the books of account of the company, before adjusted, as shown in Exhibit 1, shows a net profit of .0021. It will be noted in analyzing the costs that there is a loss of very nearly four-tenths of a cent on every quart of milk sold through stores. This has been determined by apportioning the total quarts of milk purchased, in proportion as the amount of sales of dairy products in the stores, bears to the combined sales of dairy products in both routes and stores, and also by charging on a quantity basis a proportion of the cost of the milk, freight, country expenses, advertising expenses, administrative expenses; in addition that part of the store expenses actually chargeable to the sale of dairy products was also included in proportion to the store sales.

It will be noted that this unit loss in stores reduces the net unit profit as shown by the routes amounting to .00227 to an average unit profit of .0021. The most remarkable item of costs in connection with this store account is expenses of delivery at the store,

which equals .0241, over one-half a cent greater than the delivery expenses shown on the routes.

EXHIBIT No. 3

Particular attention is called to the additional charges of costs for repairs and replacements included in the above exhibit, which, in view of the charges for the depreciation made or in view of what would have been the proper depreciation charges, seem in some cases to be very high.

As stated in Exhibit No. 1, the actual profit for the fiscal year ending June 30, 1916, would be materially increased if a more accurate method of charging for items of this kind was maintained.

In allowing for the arbitrary adjustment for depreciation of \$24,277.22, it must also be borne in mind that 6 per cent is allowed on *real estate and buildings* amounting to \$102,812.51, a good part of which, no doubt, is land on which no depreciation charge should be made. It will also be noted that the most conservative estimate is made in connection with depreciation rates on other items. It will also be noted that depreciation is allowed on the increase of assets shown herewith during the year, using the same rate of depreciation for a six months' period which in itself is a very conservative measure, so that no matter from what angle the costs are viewed, it becomes very evident that they are loaded with depreciation charges.

EXHIBIT No. 5

A combined statement of sales of dairy products and groceries in the stores of this company show a net loss of \$18,193.35, after charging to the stores a proportionate share of the administrative expenses on the basis of the sales in stores to total sales, and also a share of the advertising expenses for dairy products, on the basis of sales of dairy products in stores to the total sales of dairy products by the company.

As will be seen from the loss on dairy products shown in Exhibit No. 2, it must be said that a greater percentage of loss is made on the groceries than on the dairy products, all of which can only be attributed to the small turn-over in proportion to the cost of operation, and a smaller gross trading percentage of profit on

groceries than on dairy products, based on the costs for dairy products shown by this company.

It might be said that in some stores there is a small profit, and if further information is desired along these lines, figures can be obtained to show the proportion of turn-over to expenses incurred, necessary to show said profit.

EXHIBIT No. 6

Statement shown herewith shows total sales of \$1,708,683.38 and a net profit of \$23,689.21, which is particularly low, but which can be very well accounted for by the extraordinary replacement and depreciation charges as referred to aforesaid, and the unusual advertising expenses shown herein.

The cost of real estate is for special services rendered by a firm, Slawson and Hobbs, real estate brokers, for which the company pays \$100 per month. They also pay a firm, Pease and Elliman, \$15.75 a month.

It might be said in this connection, that the firm of Pease and Elliman is said to serve a large milk company operating on the East Side, and it is recommended to this committee that they subpoena this company so that the books of the company which they serve can be looked into. The solicitors' salaries and commissions shown herein are paid on the basis of from .25 to \$1.00 per quart for every customer which the company serves for thirty days.

The miscellaneous charges for \$3,158.05 are for postage in connection with mailing circulars, etc. The item of general expenses amounting to \$37,661.45 has been examined and most of the items contained therein are for ice and petty expenses. The petty cash was examined for the months of June to December and nothing of an exceptional nature was noted therein.

EXHIBIT No. 7

A particularly interesting statement herewith seems to confirm the figures shown in some other companies that the cost of the production is lower in the country than in the city. In this company, however, the distribution of depreciation and replacement expenses may somewhat cloud the actual costs, and there seems to be con-

siderable room for discussion on this very important feature of the production of milk. It will be noted, particularly, that the labor in the country is between 25 and 30 per cent cheaper than in the city, which in itself is an item to be reckoned with. The net decrease of cost in the country amounts to over .003 of a cent and it is again recommended that the fullest examination of witnesses be made to get all the information possible in connection with this subject.

EXHIBIT No. 8

The balance sheet of the company as at July 1, 1916, shows a net surplus of \$47,797.43 and in addition dividends declared and unpaid of \$20,772.00. During the year there were dividends of 5 per cent, 3 per cent, 9 per cent, of which only the 5 per cent was paid and with which capital stock was purchased to the amount of \$8,100.00.

The notes receivable shown on current assets represent mostly uncollectable accounts on the Greenfield Dairy Company, control of which is vested in the Clover Farms Company, Inc.

Attention is again called to the fact that the reserve set up for depreciation on a balance of the sheet of the company as at July 1, 1915, was approximately \$11,000, while the reserve shown here-with a year later, is over \$35,000, confirming the statements shown aforesaid that extraordinary charges were made to costs for the current year.

It might be said in conclusion that this company, while it has made additions to this plant during the year, have recently disposed of some of their branches in the borough of Brooklyn. This is merely hearsay and is simply noted for whatever benefit the Committee may get from it.

EXHIBIT No. 1

CLOVER FARMS, INC.

Readjusted Unit Cost Statement of Profit and Losses on Purchase of 19,536,650 Quarts of Milk and Sale of Same Either as Milk, Cream, Butter, etc., July 1, 1915, to June 30, 1916

	Amount		Unit
			sale
Sales.....		\$1,490,627 69	.0763
	Amount	Unit	
		cost	
Cost of product.....	\$694,943 30	.0355	
Freight.....	134,896 84	.0069	
Country, city and store ex- pense as per sheet No.....	\$525,591 54		
Less overcharge.....	6,273 77		
	\$519,317 77	.0266	
Advertising.....	29,275 04	.0015	
Administrative expenses.....	65,454 85	.0034	
	<hr/>	<hr/>	
Total cost.....	\$1,443,887 80	.....
Net profit.....	46,739 89	.0024	
	<hr/>	<hr/>	
	\$1,490,627 69	.0763	\$1,490,627 69 .0763
	<hr/>	<hr/>	<hr/>
Percent of profit on sales.....		<u>3.14</u>	

EXHIBIT No. 2

CLOVER FARMS, INC.

Production and Delivery Costs of Milk, Fiscal Year, 1915-1916

TOTAL — ROUTES ONLY

Total quantity, quarts.....		19,536,650
Sales routes.....	\$1,478,732 89	
Less miscellaneous credits.....	277 26	
	<u>\$1,478,455 63</u>	
Creamery sales.....	\$2,500 96	
Store sales.....	51,102 58	
Cheese sales.....	31,506 64	
	<u>85,110 18</u>	
Total sales.....		\$1,563,565 81
Creamery bill J. V. No. 157.....		112 00
Total sales.....		<u>\$1,563,677 81</u>
Cream purchased.....	\$68,248 09	
Cream purchased, miscl.....	80 00	
Condensed milk purchased..	2,233 76	
Cond. milk purchased, miscl..	16 36	
Milk purchased, miscl.....	162 82	
	<u>\$70,741 03</u>	
3¼ per cent of this added.....	2,309 09	
Total outside purchases.....		73,050 12
Total sales.....		<u>\$1,490,627 69</u>
Unit cost.....		.07629
Cost of milk.....	\$694,943 30	
Unit cost.....	.0355	
Freight.....	\$134,896 84	
Unit cost.....	.0069	
Country expense.....	\$162,234 02	
Unit cost.....	.0083	
City expense.....	\$347,935 44	
Unit cost.....	.0177	
Part of store expense.....	\$15,422 08	
Advertising expense.....	29,275 04	
Administrative expense.....	65,454 85	
Total cost and expenses.....	<u>\$1 450,161 57</u>	
Unit cost.....	.07419	
Net profit and loss.....	\$40,466 12	
Unit net profit and loss.....	.00211	
Total quantity, quarts.....		<u>18,898,180</u>
Sales routes.....	\$1,478,732 89	
Less miscellaneous credits.....	277 26	
	<u>\$1,478,455 63</u>	
Creamery sales.....	\$2,500 96	
Store sales.....		
Cheese sales.....	31,506 64	
	<u>34,007 60</u>	
Total sales.....		<u>\$1,512,463 23</u>

EXHIBIT No. 2 (Continued)

Creamery bill J. V. No. 157.....	112 00
Total sales.....	<u>\$1,512,575 23</u>
Total outside purchases.....	<u>70,662 76</u>
Total sales.....	<u>\$1,441,912 47</u>
Unit cost.....	<u>.07629</u>
Cost of milk.....	\$672,231 85
Unit cost.....	.0355
Freight.....	\$130,411 23
Unit cost.....	.0069
Country expense.....	\$156,932 40
Unit cost.....	.0083
City expense.....	\$347,935 44
Unit cost.....	.0184
Part of store expense.....	
Advertising expense.....	\$28,318 30
Administrative expense.....	63,095 46
Total cost and expenses.....	<u>\$1,398,924 68</u>
Unit cost.....	<u>.07403</u>
Net profit and loss.....	\$42,987 79
Unit net profit and loss.....	<u>.00227</u>

STORES — DAILY PRODUCTS

Total quantity, quarts, sales routes, less miscellaneous credits.....	<u>633,470</u>
Creamery sales, store and cheese sales.....	<u>\$51,102 58</u>
Total sales.....	<u>\$51,102 58</u>
Total outside purchases.....	\$2,387 36
Total sales.....	<u>\$48,715 22</u>
Unit cost.....	<u>.07629</u>
Cost of milk.....	\$22,711 45
Unit cost.....	.0355
Freight.....	\$4,485 61
Unit cost.....	.0070
Country expense.....	\$5,301 62
Unit cost.....	.0083
City expense.....	\$15,422 08
Unit cost.....	.0241
Advertising expense.....	\$956 74
Administrative expense.....	2,359 39
Total cost and expense.....	<u>\$51,236 89</u>
Unit total cost and expense.....	<u>.07990</u>
Net profit and loss (loss).....	\$2,521 67
Unit net profit and loss.....	<u>.00395</u>

EXHIBIT No. 3

CLOVER FARMS, INC.

Comparative Statement of Depreciation Charges Properly Chargeable to Costs and Depreciation Charges Actually Charged to Costs, Fiscal Year, July 1 to June 30, 1916

ASSETS	Book value July 1, 1915	Depreciation rate. Per cent	Amount of deprecia- tion	ADJUSTED DEPRECIATED CHARGES		
				Increase in value during 1915-1916	Deprecia- tion on increased value for six months	Total deprecia- tion
Real estate and build- ings.....	\$102,812 51	6	\$6,168 75	\$27,164 49	\$814 93	\$6,983 68
Furniture and fixtures.....	11,071 98	10	1,107 20	743 47	37 68	1,144 88
Machinery and fixtures.....	62,203 82	10	6,220 38	18,311 27	915 56	7,135 94
Horses.....	41,400 00	10	4,140 00	5,125 00	256 25	4,396 25
Wagons.....	30,365 00	10	3,036 50	19,243 35	962 16	3,998 66
Harness.....	5,739 10	10	573 91	878 20	43 90	617 81
Total depreciation.....	\$253,592 41	.....	\$21,246 74	.....	\$3,030 48	\$24,277 22

Charges for
depreciation in-
cluded in costs

Manufacturing and country depreciation charges.....	\$18,330 48
City depreciation charge.....	12,220 51
	<u>\$30,550 99</u>

Additional charges
to cost for repairs
and replacements

Replacements — country	\$19,577 72
Machinery and fixtures — country.....	4,431 54
Harness and wagons.....	1,183 03
Repairs to harness and wagons — city.....	6,921 42
Auto expense	1,568 37
Total.....	<u>\$33,682 08</u>
Bottle replacement	<u>\$33,965 18</u>

EXHIBIT No. 4

CLOVER FARMS, INC.

Statement of Milk Sold to Board of Health, Fiscal Year, 1915-1916

	New York	Brooklyn	Total
Quantity of sales, quarts.....	1,723,498	1,447,254	3,170,752
Amount of sales.....	\$137,879 84	\$115,780 32	\$253,660 16
Unit selling price.....	.08000	.08000	.08000
Cost of milk, including freight.....	\$91,349 85	\$76,691 94	\$168,041 79
Unit cost.....	.0530	.05290	.0529
Expenses:			
Wages.....	9,968 92	6,909 70	16,878 62
Stable expenses.....	10,552 98	6,414 15	16,967 13
Harness and wagons.....	.....	191 40	191 40
Depreciation.....	.....	373 13	373 13
Discount.....	6 62	.....	6 62
General expenses.....	415 40	482 20	897 60
Bottle replacements.....	881 04	721 82	1,602 86
Total cost and expenses.....	\$113,174 81	\$91,784 34	\$204,959 15
Unit cost.....	.0686	.0634	.0646
Gross trading profit.....		\$24,705 03	\$23,995 98
Advertising expense.....	\$2,730 02	\$2,292 20	\$5,022 22
Administrative expense.....	6,231 17	5,231 88	11,463 05
Building maintenance.....	441 22	370 46	811 68
Capital charges.....	690 78	579 93	1,270 71
Total charges against sales.....	\$10,093 19	\$8,474 47	\$18,567 66
Unit cost.....	.0058	.0058	.0058
Net profit.....	\$14,611 84	\$15,521 51	\$30,133 35
Unit net profit.....	.008478	.010724	.00959

EXHIBIT No. 5

CLOVER FARMS, INC.

Profit and Loss Statement of Store Sales, Fiscal Year, 1915-1916

Total dairy sales.....		\$51,102 58
Total grocery sales.....		144,840 31
		<u>\$195,942 89</u>
Cost of dairy products.....	\$33,639 19	
Cost of groceries.....	\$113,052 15	
Less credits.....	753 43	
	<u>112,298 72</u>	
Net cost of groceries.....		
Total cost of product.....		\$145,937 91
Gross trading profit.....		\$50,004 98
Rents.....	\$21,762 70	
Less rentals.....	5,546 00	
	<u>\$16,216 70</u>	
Net rent of stores.....		
Wages.....	23,208 18	
General expense.....	18,954 69	
	<u>\$58,379 57</u>	
Credits.....	177 88	
	<u>\$58,201 69</u>	
Administrative expenses:		
Dairy products.....	\$2,359 39	
Groceries.....	6,680 51	
Advertising expenses:		
Dairy products.....	956 74	
	<u>\$18,193 35</u>	
Net loss on stores.....		
	<u>\$68,198 33</u>	<u>\$68,198 33</u>

EXHIBIT No. 6

CLOVER FARMS, INC.

Detailed Profit and Loss Account, Fiscal Year July 1, 1915, to June 30, 1916

Route sales.....	\$1,478,732 89	
Store sales.....	195,942 89	
Creamery sales.....	2,500 96	
Cheese sales.....	31,506 64	
Total sales.....		\$1,708,683 38
Milk purchases.....	\$694,943 30	
Cream purchases.....	68,248 09	
Condensed milk purchases.....	2,233 76	
Grocery purchases.....	111,113 68	
	\$876,538 83	
Less increase in cheese inventory.....	6,358 25	
Net cost of purchases sold.....		\$870,180 58
Gross trading profit.....		\$838,502 80
Freight.....	\$134,896 84	
Manufacturing and country expenses:		
Labor.....	\$79,414 88	
Stable.....	11,382 47	
Light and power.....	1,968 28	
Fuel.....	9,041 26	
Ice.....	4,533 90	
Replacements.....	19,577 72	
Machinery and fixtures.....	4,431 54	
Harness and wagons.....	1,183 03	
Water.....	2,100 00	
Depreciation.....	18,330 48	
Miscellaneous expense.....	12,820 12	
Insurance.....	1,429 89	
Sundry charges, milk, cream and condensed milk.....	259 18	
Cheese expenses.....	4,166 32	
	\$170,639 07	
Less interest charges.....	4,276 88	
Net manufacturing expense.....	\$166,362 19	
General delivery and city expenses:		
Wages.....	181,836 62	
Stable charges.....	54,600 06	
Bottle replacement.....	33,965 18	
Depreciation.....	12,220 51	
Repairs to harness and wagons...	6,921 42	
Insurance.....	5,739 87	
Miscellaneous charges.....	277 26	
Interest on drivers' securities....	894 98	
Automobile expense.....	1,568 37	
Loss on shorts.....	203 92	
Discounts on sales.....	7,074 52	
General expense.....	37,661 45	
Bad debts charged off.....	8,052 51	
Grocery warehouse.....	1,938 47	
	\$352,955 14	
Less interest charge.....	4,276 87	

EXHIBIT No. 6 (*Continued*)

Net general delivery and city expense.....		\$348,678 27	
Building maintenance.....		4,710 48	
Advertising:			
Solicitors' salaries.....	\$12,482 75		
Commissions.....	2,506 90		
Newspaper advertisements.....	2,179 11		
Billboard advertisements.....	1,780 56		
Circulars.....	3,543 61		
Real estate information.....	1,251 00		
Miscellaneous.....	3,158 05		
Street car advertisements.....	2,985 06		
Total advertising.....			29,887 04
Store expense:			
Rents.....	\$16,216 70		
Wages.....	23,208 18		
Expenses.....	18,954 69		
Total store expenses.....			58,379 57
Administrative expenses:			
Officers' salaries.....	\$19,806 48		
Employees' salaries.....	22,005 15		
Stationery and printing.....	4,576 06		
General expenses.....	12,832 21		
Legal expenses.....	3,330 23		
Traveling expenses.....	2,248 24		
Interest on loans.....	3,424 46		
Interest on mortgages.....	1,394 98		
Taxes.....	1,988 00		
Rent.....	181 39		
Sundries.....	112 00		
Total administrative expenses.....			71,899 20
Total freight and expenses.....		\$814,813 59	
Net profit.....		23,689 21	
		<u>\$838,502 80</u>	<u>\$838,502 80</u>

EXHIBIT No. 7

CLOVER FARMS, INC.

Comparative Statement of Production Costs of Milk in City and Country Plants, Fiscal Year, 1915-1916

COUNTRY	Quantity	Amount	Unit cost	Labor	Unit cost	Replacement expense	Unit cost	Freight	Unit cost	Total cost	Unit cost
<i>Pasteurizing plant</i>	<i>Quarts</i>										
Homer.....	2,591,718	\$95,335 64	.03750	\$8,056 97	.00311	\$9,044 33	.00349	\$27,149 06	.01047	\$139,586 00	.05456
State Hill.....	617,905	18,387 93	.02975	1,993 05	.00324	2,009 65	.00325	3,699 32	.00598	26,089 95	.04222
Shekomeko.....	1,521,472	56,777 23	.03732	4,043 33	.00265	5,283 78	.00347	14,852 47	.00976	80,956 81	.05320
Total	4,731,095	\$170,500 80	.03604	\$14,093 35	.00298	\$16,337 76	.00345	\$45,700 85	.00966	\$246,632 76	.0521301

EXHIBIT No. 7 (Continued)

CITY	Quantity	Cost of product and freight	Unit cost	Labor	Unit cost	Replacement expense	Unit cost	Total cost	Unit cost
<i>Pasteurizing plant</i>	<i>Quarts</i>								
131st Street pasteurizing plant	5,121,684	\$248,667 44	.04855	\$22,452 03	.00438	\$19,405 10	.00378	\$290,524 57	.05671
48th Street pasteurizing plant	5,001,068	232,749 61	.04653	19,165 60	.00383	18,623 34	.00372	270,538 55	.05409
Total.....	10,122,752	\$481,417 05	.04755	\$41,617 63	.00411	\$38,028 44	.00376	\$561,063 12	.0554259

Difference in pasteurizing cost: .0032958.

EXHIBIT No. 8

CLOVER FARMS, INC.

General Balance Sheet, Clover Farms Inc., Fiscal Year 1915-1916

Assets

Fixed assets:

Cans, boxes and bottles.....	\$38,597 32
Furniture and fixtures.....	11,815 45
Harness.....	6,617 30
Horses.....	46,525 00
Ice.....	4,301 99
Machinery and fixtures.....	80,515 09
Real estate and buildings.....	129,977 00
Supplies.....	9,443 68
Tools.....	2,996 59
Wagons and autos.....	49,608 35
Wagon shop material.....	2,224 65
Can material.....	156 77

Total.....	\$382,779 19
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Special assets:

Improvements.....	\$828 50
Investments.....	1,176 75
Shokomeko ice pond.....	213 61

Total.....	2,218 86
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Working and trading assets:

Butter.....	\$10 80
Buttermilk.....	113 96
Cheese.....	11,201 45
Condensed milk.....	13 43
Cream.....	1,368 54
Groceries.....	5,775 36
Milk.....	2,547 49
Stores.....	9,272 64

Total.....	30,303 67
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Current assets:

Accounts receivable, routes.....	\$66,478 45
Accounts receivable, stores.....	12,097 25
Cash in bank.....	3,315 54
Cash on hand.....	1,295 00
Notes receivable.....	33,390 11

Total.....	116,576 35
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Personal and others:

Check return.....	\$263 19
Insurance fund.....	3,055 80
G. A. Twele.....	100 00

Total.....	3,418 99
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Deferred charges to expense:

Advanced freight.....	\$697 58
Dairy inspection.....	266 65
Prepaid insurance.....	4,416 95

Total.....	5,381 18
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Total assets.....	\$540,678 24
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EXHIBIT No. 8 (*Continued*)

<i>Liabilities</i>	
Capital stock authorized	\$250,000 00
Capital stock issued	76,900 00
Total, capital stock issued	\$173,100 00
First mortgages	26,700 00
Notes payable drivers	22,100 00
Current liabilities:	
Accounts payable	\$108,120 18
Drivers' securities	1,468 81
Notes payable	99,208 76
Total	208,797 75
Reserves for:	
Depreciation furniture and fixtures	\$1,625 57
Depreciation H. W. H. and autos	12,517 40
Depreciation, machinery and fixtures	12,095 49
Depreciation, real estate and buildings	9,329 93
Depreciation, tools	275 43
Total	35,844 82
Personal and others:	
Clover Farms, Inc.	\$103 13
Officers' salaries	864 91
Total	968 04
Accruals:	
Interest on drivers' securities	\$242 95
Wages	3,564 41
Water	790 84
Total	4,598 20
Dividends declared	20,772 00
Surplus, June 30, 1916	47,797 43
Total liabilities	<u>\$540,678 24</u>

The Mutual McDermott Dairy Corporation had not been in operation a full year at the time of the audit of its books and only certain features of its operation thought to be of value for comparative purposes in ascertaining the production costs were included in the report.

REPORT

TO

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,
LIVE STOCK AND POULTRY

ON

PRODUCTION COSTS OF MILK — MUTUAL-McDERMOTT DAIRY
CORPORATION, 214 EAST 22nd STREET, NEW YORK CITY, FOR
THE FISCAL PERIOD MAY 1 — AUGUST 31, 1916

1840
1841
1842

1843

1844

1845
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1848

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1851

1852

1853

PRODUCTION COSTS OF MILK

December, 15, 1916.

Joint Legislative Committee on Dairy Products, Live Stock and Poultry:

GENTLEMEN.—Agreeable to your request I have made an examination of some of the books of account of the Mutual-McDermott Dairy Corporation, with special reference to production costs, and I am attaching hereto statements supporting same.

Yours very truly,

HERBERT B. HAWKINS,
Certified Public Accountant.

REPORT

The Mutual-McDermott Dairy Corporation is a company with outstanding capital stock at the *present time* as follows: Common stock, \$396,302.13; preferred stock, \$207,500.

This company is a consolidation of the Mutual Milk and Cream Company and the McDermott Dairy Company, and conducts a general business in the production and distribution of milk and cream, both wholesale and retail.

The company has been organized since February, 1916, and because of the unsatisfactory condition of their books for the first few months subsequent to their organization, it has been deemed advisable, in view of the limited time at my command, to select a period for analysis whereby the figures are more reliable. For this particular examination the months of May, June, July and August, 1916, were selected, and details are set forth hereinafter.

EXHIBIT No. 1

The statement hereto attached showing the purchase and cost of production at country stations has been compiled after considerable search and compilation of detailed records for the four months, May, June, July and August, 1916, during which months, as is well known, the prices for milk are considerably lower than the winter months.

Particular attention is called to the unit costs of milk and the expenses at country stations for this period. It is evident that an improper distribution has been made when it is noted that in some cases, stations where milk is pasteurized there is a smaller unit cost than at stations where there is no pasteurization. It will also be noted that the unit cost per quart of milk is considerably lower than the average cost as shown in other statements for milk purchased. The cost of the functional operations, it will be noted,

has not been determined as has been shown in other reports, and no comparison can be made with other companies along these lines, nor can a comparison be made owing to the fact that a short period of the year is taken.

EXHIBIT No. 2

The statement herewith shows a distribution of expenses for each of the branches of this corporation, analyzed from their records for the period herein mentioned. It might be said at this time that the wholesale sales contribute a very fair percentage of the total turnover of the business.

The sales shown here are, of course, for milk and milk products only, as compared with the sales shown in Exhibit No. 3, which include sales of merchandise through stores. The average cost per route is particularly low, and the percentage of delivery costs to sales, it will be noted, varies considerably between the different branches, the 22nd street branch, showing the smaller per cent. of delivery costs to sales, represents a very much larger per cent. of wholesale sales than retail sales, while the Bronx branch represents a very much larger per cent of retail than wholesale sales.

These are particularly interesting figures, it would seem, and your attention to a study of same is hereby recommended.

EXHIBIT No. 3

The profit and loss statement shown herewith is a combined statement of monthly statements offered by this company. The sales, as noted above, include sales of sundry products at their stores. The incompleteness of their records due to the present imperfect system of accounts, which the company is endeavoring to remedy as rapidly as possible, makes the figures somewhat cloudy, but the general turnover and expenses seem to be fairly represented.

EXHIBIT No. 4

The balance sheet herewith is at the end of August and the end of the period shown in previous statements and is simply shown for whatever reference or information the Committee may obtain from it.

EXHIBIT No. 1

MUTUAL McDERMOTT DAIRY CORPORATION

Statement of Purchases and Cost of Production at Country Stations for the Fiscal Period May 1 to August 31, Inclusive

STATIONS		Quantity purchased	Cost	Labor	Coal and wood	Cheese account	Butter account
		Quarts					
Orson.....		1,020,252	\$46,908 17	\$4,027 45	\$523 15	.....	\$287 17
Poyntelle.....		451,281	13,398 51	492 03	106 03	.....	.....
Preston Park.....		522,318	15,869 64	524 08	70 58	.....	.....
South Montrose.....		36,940	1,037 88	281 75	51 80	.....	.....
New Milford.....		191,692	5,514 82	365 00	51 05	.....	.....
Roxbury.....		78,225	2,361 24	240 00	73 00	.....	.....
Middlebury*.....		951,411	27,101 54	1,133 67	537 65	.....	.....
Salisbury*.....		400,584	11,411 90	498 50	162 79	.....	.....
Stillwater.....		464,423	14,294 57	501 75	215 20	.....	.....
Burke.....		3,109,286	88,173 74	3,335 59	388 85	\$625 25	.....
Canton*.....		1,278,795	36,040 13	1,722 23	1,091 83	.....	2 18
Champlain.....		222,925	6,034 43	1,622 57	1,131 56	.....	410 61
Delaney*.....		222,925	6,345 92	424 95	99 01	.....	.....
Deposit*.....		992,130	29,658 52	1,415 22	114 70	.....	.....
Dover Plains.....		344,060	10,513 72	321 00	133 83	.....	.....
Ellenburg*.....		764,040	22,836 06	808 18	189 76	.....	.....
Glenfield*.....		528,500	15,142 61	621 95	211 71	.....	9 31
Howells*.....		479,553	14,654 24	533 95	132 00	.....	.....
Indian Castle.....		671,809	18,672 86	643 77	224 88	.....	.....
Lowville*.....		318,008	9,304 43	440 00	57 00	.....	.....
Martinsburg.....		170,758	5,303 37	225 54	7 12	.....	.....
Millbrook.....		505,505	15,657 92	594 78	489 39	.....	.....
Montgomery.....		436,087	13,225 69	602 15	232 00	.....	.....
New Paltz*.....		499,438	15,130 50	687 70	290 18	.....	.....
Phinney's Creek.....		486,592	14,554 69	514 50	52 20	.....	.....
Smyrna*.....		648,886	17,929 03	687 15	189 00	.....	.....
South Gilboa*.....		1,208,946	38,669 98	4,444 40	563 14	.....	.....
Unadilla*.....		1,268,111	37,583 38	4,003 26	1,597 51	.....	232 58
Wells Bridge*.....		322,193	15,947 83	2,062 08	222 16	.....	.....
West Brook*.....		480,461	14,904 66	405 75	128 73	.....	.....
Total.....		20,209,877	\$593,381 98	\$31,371 85	\$8,237 81	\$630 66	\$941 85

* Pasteurizing plants.

EXHIBIT No. 1 (Concluded)

STATIONS	Repairs and depreciation	Other charges	Total expenses	Total cost and expenses	Unit cost of milk	Unit cost of milk and expenses
Orson.....	\$455 40	\$2,482 39	\$7,775 56	\$54,683 73	.0289	.0337
Payntelle.....	138 04	439 82	1,175 92	14,574 43	.0297	.0322
Preston Park.....	37 00	661 77	1,293 43	17,163 07	.0303	.0328
South Montrose.....	280 84	491 60	1,133 87	2,133 87	.0289	.0577
New Milford.....	123 96	309 43	1,849 44	6,364 26	.0289	.0332
Roxbury.....	168 84	303 99	785 83	3,147 07	.0302	.0402
Middlebury*.....	269 48	1,333 42	3,274 92	30,375 76	.0284	.0319
Salisbury*.....	76 04	653 39	1,391 32	12,803 22	.0284	.0319
Sillwater.....	209 60	538 82	7,465 37	15,739 94	.0308	.0389
Burke.....	672 64	2,432 03	7,465 54	95,630 28	.0282	.0307
Canton*.....	1,337 28	1,455 88	6,017 83	42,057 96	.0329	.0329
Champlain.....	229 96	472 83	1,456 92	17,491 35	.0287	.0313
Delancey*.....	189 12	445 65	1,158 73	7,504 65	.0284	.0336
Deposit*.....	315 40	1,572 25	3,417 57	33,076 09	.0298	.0333
Dover Plains.....	143 36	571 67	1,269 86	11,783 58	.0305	.0342
Ellenburg*.....	132 44	710 20	1,855 19	24,191 25	.0292	.0316
Glenfield*.....	284 40	604 57	1,722 63	16,865 24	.0286	.0318
Howells*.....	352 84	469 34	1,488 13	16,142 37	.0305	.0337
Indian Castle.....	144 32	884 64	1,897 61	20,570 47	.0278	.0306
Lowville*.....	312 32	807 62	1,616 94	10,921 37	.0292	.0343
Martinsburg.....	63 08	388 53	1,684 27	5,987 64	.0310	.0350
Millbrook.....	484 04	437 29	2,005 50	17,683 42	.0309	.0340
Montgomery.....	158 24	793 93	1,736 32	15,012 01	.0303	.0344
New Faltz*.....	206 56	761 64	1,946 98	17,076 58	.0303	.0342
Phinney's Creek.....	129 64	363 77	1,060 11	15,914 80	.0305	.0327
Smryna*.....	424 64	486 80	1,787 59	19,716 62	.0276	.0304
South Gilboa*.....	510 80	1,406 39	6,924 73	45,594 71	.0319	.0377
Unadilla*.....	792 48	3,012 48	7,638 31	45,221 69	.0296	.0356
Wells Bridge*.....	296 40	1,399 96	3,981 50	19,329 33	.0294	.0370
West Brook*.....	112 84	1,719 71	1,367 03	16,271 69	.0310	.0338
Total.....	\$9,052 00	\$27,412 41	\$77,646 47	\$671,028 45	.0293	.0332

* Pasteurizing plants.

EXHIBIT No. 2

MUTUAL McDERMOTT DAIRY CORPORATION
Operating and Distributing Expenses—May, June, July and August, 1916

	Twenty-second street	Manhattan street	Bronx	Brooklyn	Jersey City	Total
Operating expense:						
Rent.....	.....	\$3,400 00	\$2,530 00	\$1,466 66	.....	\$7,396 66
Petty cash.....	\$770 04	689 06	670 37	850 94	\$365 91	3,346 32
Miscellaneous.....	542 71	539 67	342 67	820 44	42 60	2,088 09
Ice.....	5,761 99	4,610 86	4,102 31	2,187 05	249 45	16,911 66
Telephone.....	576 45	740 84	136 60	107 26	81 99	1,646 14
Light.....	103 36	429 38	291 77	561 44	35 80	1,421 75
Bottle collecting.....	2,784 49	3,011 40	.....	166 66	631 02	6,593 57
Coal.....	4,428 74	780 22	14 05	236 64	17 50	5,477 15
Water.....	30 70	284 60	27 90	131 25	14 95	489 40
Stable expense:						
Feed.....	7,299 38	5,872 90	5,753 22	3,700 75	644 87	23,271 12
Horseshoeing.....	1,209 88	454 55	994 00	493 20	218 38	3,370 01
Miscellaneous.....	243 65	130 03	13 03	94 15	22 25	503 11
Stable supplies.....	159 65	259 57	324 52	.....	.....	743 74
Wages:						
Office.....	4,471 01	4,797 11	3,360 98	2,980 22	741 88	16,351 20
Delivery, wholesale.....	4,739 90	628 76	929 74	2,445 53	.....	6,743 93
Delivery, retail.....	29,343 24	22,572 80	28,121 29	8,691 10	3,082 66	91,811 09
Inspectors.....	2,850 40	2,513 34	3,646 80	1,233 98	364 00	10,608 52
Canvasers.....	2,185 85	6,895 93	4,798 99	1,708 16	680 93	16,339 86
Stable.....	3,258 92	2,274 40	2,971 16	1,196 34	273 58	9,974 40
Commission.....	2,473 82	2,271 68	1,500 00	1,118 08	336 04	7,699 62
Yard and platform.....	7,106 00	4,271 6	4,221 79	1,966 62	881 87	18,882 34
General.....	2,211 45	1,896 25	410 47	244 00	60 19	4,822 36
Motor trucks.....	.....	.....	.....	1,560 90	.....	1,560 90
Total.....	\$82,551 63	\$69,709 41	\$95,161 66	\$31,851 37	\$8,728 87	\$258,062 94
Number of wholesale routes.....	9	2	80	1	1	15
Number of retail routes.....	82	70	80	32	10	274
Total number of routes.....	91	72	82	33	11	289

Total cost of delivery charges.....	\$67,553 15	\$55,283 38	\$57,045 99	\$25,523 03	\$7,286 65	\$212,092 20
Average cost per route.....	82,742 34	69,768 10	69,568	773 42	862 42	735 95
Total cost of branch and delivery charges.....	82,551 63	69,760 41	65,161 66	31,851 37	8,728 87	258,062 94
Average cost of branch and delivery charges per route.....	907 16	969 02	794 65	965 19	703 53	924 09
Wholesale sales.....	287,370 62	32,838 75	26,569 98	47,190 42	13,463 79	407,453 56
Retail sales.....	239,186 10	139,129 75	189,439 56	66,478 63	24,762 46	718,996 50
Total sales.....	\$526,556 72	\$231,988 50	\$216,009 54	\$113,669 05	\$38,226 25	\$1,126,450 06
Per cent of delivery cost to sales.....	12.83	23.83	26.49	22.45	19.06	18.88

EXHIBIT No. 3

MUTUAL McDERMOTT DAIRY CORPORATION

Combined Profit and Loss Statement—May 1st to August 30th, 1916

	May	June	July	August	Total
Gross sales.....	\$299,746 36	\$314,599 34	\$274,197 44	\$301,382 61	\$1,189,925 75
Less discounts allowed.....	528 35	626 22	447 75	965 08	2,567 40
Total sales.....	\$299,218 01	\$313,973 12	\$273,749 69	\$300,417 53	\$1,187,358 35
UNIT COST					
Cost of Merchandise					
Milk purchased.....	\$154,607 73	\$160,206 22	\$151,508 50	\$142,482 06	\$608,804 51
Creamery operations.....	19,959 92	20,696 03	21,628 62	20,453 67	\$82,738 24
Cost in country.....	\$174,567 65	\$180,902 25	\$173,137 12	\$162,935 73	\$691,542 75
Freight inward.....	28,144 16	27,309 27	26,697 06	26,606 29	108,846 78
Ferry.....	494 87	533 44	677 01	509 13	2,214 45
Terminal platform.....	315 00	279 00	278 99	279 00	1,151 99
Motor truck hauling.....	4,911 55	4,743 86	4,574 65	4,478 06	18,708 12
Bottling department operations.....	\$208,433 23	\$213,857 82	\$205,364 83	\$194,808 21	\$822,464 09
Plant operations.....	4,884 39	6,241 10	7,182 15	6,956 55	25,264 19
Storage and butter expenses.....	3,947 54	3,656 69	2,410 67	4,310 97	14,325 87
	100 36	1,154 24	568 39	361 64	2,184 63
Total.....	\$217,365 52	\$224,909 85	\$215,526 04	\$206,437 37	\$864,238 78
Deduct increase in investment.....	26,160 92	21,449 11	29,815 43	10952 76	66,472 70
Cost of merchandise sold.....	\$191,204 60	\$203,460 74	\$185,710 61	\$217,390 13	\$797,766 08
Gross profit.....	\$108,013 41	\$110,512 38	\$88,039 08	\$83,026 40	\$389,592 27
Unit gross profit city operations:					
Hauling to branches.....	\$828 03	\$153 85	\$886 57	\$2,696 52	\$4,564 97
Branch operations.....	75,946 45	74,463 31	81,318 10	69,914 06	301,641 92
Total.....	\$76,774 58	\$74,617 16	\$82,204 67	\$72,610 58	\$306,206 89
Profit on sales.....	\$31,238 93	\$35,895 22	\$5,834 41	\$10,415 82	\$83,385 38
Unit profit.....					

GENERAL EXPENSES

Salaries.....	\$2,742 51	\$2,707 14	\$2,919 77	\$3,060 05	\$11,429 47
General expenses.....	241 67	1,132 97	966 07	1,423 52	3,764 23
Freight outward.....	214 00	1,152 99	175 66	219 12	761 86
Advertising.....	1,476 32	1,410 58	1,320 73	1,435 42	5,645 05
Donations.....	21 35	9 70	18 52	8 88	58 45
Laboratory expenses.....	226 47	276 68	337 76	334 39	1,175 30
Stationery and printing.....	300 00	300 00	300 00	300 00	1,200 00
Heat and light.....	982 51	1,213 89	803 56	1,458 99	4,481 95
Legal expenses.....	75 95	81 00	441 99	1,29 03	4,627 97
Insurance.....	804 81	1,047 41	759 10	1,190 43	3,801 80
Taxes.....	807 52	817 00	916 33	962 10	3,502 95
Interest on bonds and mortgages.....	2,801 79	2,788 90	2,781 28	3,240 01	11,581 98
Discount on bonds.....	83 34	83 34	83 34	83 34	333 36
Depreciation.....	1,327 11	1,327 11	1,295 57	1,295 57	5,245 36
	12,107 44	13,323 71	13,119 68	15,038 90	53,539 73
	\$19,131 49	\$22,571 51	\$7,285 27	\$4,623 08	\$29,795 65
		534 05	641 31		2,343 97
Other income.....	\$19,801 62	\$23,106 46	\$6,643 96	\$4,135 50	\$32,139 62

The accountant has also prepared a report embodying certain statistics which are of considerable value upon these questions. In Exhibit No. 1 in the following report is contained a table made from the records of the milk companies showing the average prices paid for milk by the New York dealers for each month of the several years from 1902 to 1916, inclusive. Exhibit No. 2 in connection therewith shows the amount of milk received by the metropolitan district for each month of said years *as fluid milk*, while Exhibit No. 3 shows the addition of cream and condensed milk reduced to fluid milk quantities with various statistics in connection therewith. This report also shows in its various exhibits the sources of supply of the milk in question.

The Committee has gathered throughout the State a great number of exhibits in relation to the amount, prices paid, cost of manufacturing at cheese and butter factories of all kinds. These exhibits are tabulated in large part and a great deal of the interesting information contained in them is shown in Exhibits Nos. 5 and 6. Perhaps the most interesting exhibit in connection with the general report of the accountant is Exhibit No. 12, which follows. The milk distributors have long claimed that the months of October, November, December and January, because of the comparatively high prices paid both for milk, resulted in a net loss in the distribution thereof and that the profits made from the business were necessarily made during the months from February to August, inclusive. It is not going too far to state that this claim on the part of the distributors has been disputed by a great many persons. The accountant employed by the Committee examined into that question fully and the result of that examination is shown in detail by Exhibit No. 12 of the report which follows. From this exhibit it would appear that the claims of the distributors have been well founded. This table is made up from the records of companies whose detailed audit precedes in this report. From this, it would appear that on every quart of milk sold by these companies during the period from September, 1915, to February, 1916, there was a loss of at least .0001 per quart, amounting to as much as .0039 for the month of November, 1915. Of course the

losses for these months actually were in these companies compensated for by the profits from February to August, inclusive, which increased from a net profit of .0006 in the month of February, 1916, to a profit of .0135 for the months of May and June, 1916.

MILK COSTS

A BRIEF SUMMARY OF THE EXAMINATION OF VARIOUS MILK
CONCERNS AND A STUDY OF OTHER REPORTS

FOR THE

JOINT LEGISLATIVE COMMITTEE ON DAIRY PRODUCTS,
LIVE STOCK AND POULTRY

BY

HERBERT B. HAWKINS, C. P. A.

(545)

MILK COSTS

February 1, 1917.

Attached hereto you will find a very brief summary of some studies and analysis in connection with my work for you.

The figures shown in Exhibits No. 2, No. 3 and No. 4 were constructed in part from the files of The Milk Reporter by courtesy of Mr. John J. Stanton, and due credit is acknowledged herewith, and the information in connection with the history of freight on milk prior to 1902 was also obtained from the same source.

This summary is not as complete as additional time and study could make it, but it is hoped that it will serve its purpose.

Very truly yours,

HERBERT B. HAWKINS,

Certified Public Accountant.

REPORT ON MILK COSTS

Any treatise on the subject of the costs of milk, must necessarily fall short of a complete study if it does not include a study of the cost of production.

Any complete determination of what the market value of milk should be for any purpose, aside from the value that may be determined by supply and demand, also falls short if the cost of producing the article can not be determined.

While the figures herein contained are not offered as a complete answer to even the second part of the story of milk costs, it may go a long way toward dispelling the ever too willing popular belief in the fabulous profits and the accumulation of untold wealth in the hands of the milk distributors.

No subject of costs is as susceptible of such fine analysis as that which deals with the handling, transportation and distributing of milk, but with the information that has been gathered, part of which is included herewith, a new light may shine on what has heretofore been a very much misunderstood subject.

COST OF RAW FLUID

The subject of costs treated herein, therefore, treats only of that pertaining to the purchase of the product from the producer, the handling, transporting, manufacturing and delivery. The initial step, naturally, is the purchase of the milk. Thirty years ago the popular idea of milk was that which was brought to the consumer — if not from within the city limits — at least from a very short distance out of it. The subject of grading, sanitary handling, or any of the vexatious problems that have increased with the increased consumption, and the longer distance which the milk has had to be transported, were never thought of in those days. Perhaps it can be well said that not until the introduction of the milk bottle as a means of conveying the product to the consumer, together with health regulation and pasteurization, has milk become a popular article of food. The increased consumption of milk in the greater city of New York in the past fifteen years amounts to such a staggering total that those unversed in the statistics and history of milk distribution will plainly wonder at the figures.

In 1902 there were 10,197,387 forty quart cans of milk coming into the greater city. In 1916 there were 19,352,228 forty quart cans of milk or an increase of 89.7 per cent.

This increase has been gradual each year with the exception of the year 1908 when there was a decrease of .3 per cent under 1907. With this increase in consumption has come a gradual increase in cost of handling in every channel through which milk has to come. Statistics that can be fairly well relied on have been procured, as shown in Exhibit No. 1, showing prices paid for raw milk to be used for market milk purposes—they show an average increase in price by months for the fifteen years of 40.6 per cent, with a high percentage of increase of 57.3 per cent for the month of October, and a low percentage of increase of 20.8 per cent for the month of February. This high increase for the month of October is due of course particularly to the recent rise to the farmer, in October of 1916. In this connection it is interesting to note that notwithstanding this increase per unit quart to the farmer, the average daily yield per day in dairies of the Eastern States has decreased fifty pounds, as per Exhibit No. 8. This fifty pounds, of course, is based on the decrease shown between 1902 and 1915, and plainly represents a decrease in the number of cows per dairy.

CREAMERY STATIONS

The New York Board of Health regulations necessitates the utmost sanitary conditions to prevail in connection with the proper handling at the source of supply, and it can be well said that some of the country buildings of milk distributors in this part of our country are monuments to the genius and forethought of pioneers in the milk business, erected in order to produce a safe and sanitary article of food.

Detail studies of the cost of handling milk at country stations vary with the way the product is finally disposed of at the railroad station. Some stations at which pasteurization is completed show handling costs averaging from .00321 per quart to .0064 per quart, while stations at which the milk is simply received and iced and shipped in cans show a cost of .0024 to .0035 per quart.

FREIGHT

The history of hauling milk from the country by freight to the city consumer goes back perhaps to 1842, at which time the freight on the Erie railroad was one-half cent a quart. In 1857 this was increased to one cent a quart, and in 1862-3 to five and one-half cents a gallon for milk, and six cents a gallon for cream, at which date the Harlem railroad also became interested in the transportation of milk. These rates were for milk delivered on the west shore of the Hudson and for milk delivered on the east shore the rates were one-half cent a gallon extra. In 1879 the New Haven, the New Jersey, the Hudson River and the D. L. & W. were all bringing milk into the New York market and charging the same rate as the Erie and Harlem. At this period the contention was raised that the price was exorbitant and the matter was about to be looked into by the Legislature of New York, and in order to frustrate any such action the railroads reduced the rate, voluntarily, to one cent a quart on May 1st, 1879. On January 1, 1884, this rate was reduced to twenty-seven and one-half cents per 40 quart can of milk and 45 cents for cream. On January 27, 1885, the rate was again increased to 35 cents for a 40-quart can of milk, the cream remaining the same. On January 15, 1890, the rate for milk was reduced to 32 cents and cream 42 cents per 40-quart can, and on April 1, 1892, cream was increased to 50 cents, the milk remaining at 32 cents as above. The rates for 40-quart cans up to May 14, 1897, were also applicable to the transportation of milk in bottles, and regardless of the point of shipment, so that up to May 15, 1897, the gradual reaching out into the country had produced a condition where the milk was coming from points 200 miles away, and on that date the following schedule was adopted, the rates differing for cans and bottles according to the zone as shown.

These rates were further varied as between carload and less than carload lots (as per Exhibit No. 9 showing statement of increase in freight rates since August 1, 1902, to date). The increase determined by these rates for can milk in carload lots has been approximately 15 per cent in the last fifteen years. In less than carload lots the increase has been less than 5 per cent. In

quart bottles, per 40 quarts, the increase has varied from 15 per cent in the first zone to nearly 29 per cent in the fourth zone, and quart bottles in less than carload lots have shown an increase varying from 9 to 17½ per cent.

PASTEURIZATION

The theory of pasteurization of milk has been so thoroughly and completely accepted as the only logical solution to the problem of supplying the city consumer with a healthful, clean milk, that the cost of this process has naturally been an added expense in the handling of it. In 1911 the Board of Health of New York city demanded that all milk sold in the city of New York except that produced on certified farms, should be pasteurized. The tremendous investment necessitating a change of this kind drove hundreds of small dealers out of business and has given growth to large concerns with sufficient capital to maintain adequate plants to serve the public in conformity with the regulations as laid down by the Board of Health. As stated above, pasteurization is conducted at the country stations and in the city. In reports already submitted to this Committee it would seem to indicate that the cost of conducting this process could be completed at a lower expense in the country than the city. Notwithstanding the contention of the large distributors who are more anxious to maintain larger plants in the city to take care of the collection of milk from many stations, the figures as shown to this Committee prove almost beyond a doubt that there are certain economies that can be effected by pasteurization in the country *if there is a constant supply at any station to keep the plant working*. Figures including the cost of milk in bottles show varying costs in the country for a year of .0428 to .0516 and in the city of .0494 to .0554 per quart.

DELIVERY

The problem of actually getting the milk to the consumer is one, the solving of which has been a source of discussion for many years. It can be safely said at this time, however, that no product of the farm is more economically handled in distribution to the city consumer, than the quart of milk to be had every morning at his door step. The consumer's attitude undoubtedly can be summed

up in these words "demand for service," and until some hitherto unknown means of distribution can be discovered the largest single cost of the price of a quart of milk outside of the fluid itself will remain. It can, incidentally, safely be said that even a reduction of a ten cent bottle of milk to eight cents, if purchased at a store would tempt but a very small percentage of housekeepers.

Whatever increasing costs of delivery that can be shown are partly determined by the increased cost of wages to drivers of milk wagons. In 1902 the average driver made about \$15.00 a week, in 1907, \$18.00 a week, and in 1916, \$22.00 a week, almost a fifty cent increase since 1902, and this not counting the increased cost of feed, ice and other articles in connection with the upkeep of wagons and horses. This delivery cost has been determined at anywhere from .02 to .03 in Exhibits submitted to this Committee. The average cost of delivering a nine cent bottle of milk was .0238, and it can be safely said that it is not any less.

BOTTLES

With the introduction of the milk bottle as a convenience of delivery an added cost was levied on the consumer. At the present time the loss of milk bottles to the distributor in this city in a year would probably equal \$750,000.00, and the actual breakage as shown by an examination of the accounts of milk companies in this city is beyond the imagination of any layman. Up to the present time no solution seems to have been found to protect the distributor in this connection. However, at this writing, an innovation is being attempted by one of the smaller dealers in Brooklyn by demanding a deposit by placing a stamp on the bottle, and no doubt the result of the experiment will be watched with considerable interest.

SALE OF MILK

The price of milk to the consumer up to 1907 as shown by Exhibit No. 10 was eight cents, but in 1907 the price was raised to nine cents coincident with the raising of the price to the farmer, but in 1908 it was lowered temporarily only to go back to nine cents in 1909 and ten cents in 1916 with the recent raise. In 1912 a grade "A" milk was introduced in New York city to the

milk consuming public at a price of ten cents per quart. This milk has certain advantages in production. The Board of Health inspection of the dairies producing it exacts the utmost sanitary condition, and the fact that it is all pasteurized, bottled and sealed in the country before leaving the distributor's station naturally recommends it as a particularly safe article of food. In 1912 the price of this product was ten cents, in August 1916 it was eleven cents and in October, 1916, it was raised to twelve cents. It has been estimated variously that from two and one-half and three million quarts are consumed in the metropolitan district daily. As to the actual quantity coming into the city proper, there are no reliable, if any, statistics obtainable. It will be seen in Exhibit No. 2 that there is a greater per cent. increase of milk coming into the New York market at the time the farmer receives a high price than there is in the months of May and June when he receives his lowest price. It is evident from this, therefore, that the price paid to the farmer by the manufacturers of cheese in the months of May and June is just as profitable as the price paid by the distributor, and in addition, he has not the exacting conditions of Boards of Health to live up to.

An interesting study of the distances which the distributor in the city has had to go in order to procure his milk is illustrated in the table Exhibit No. 4, showing the cans of milk and cream carried by the various railroads entering New York City for the past fifteen years. In 1902 the New York Central carried 16 per cent. and in 1916, 25.8 per cent. It was not until 1913 that the Pennsylvania road started bringing milk into this city at which time it carried one-half of one per cent. of all the milk, and in 1916 it raised its average to nearly four per cent. These figures prove conclusively that the distributor is going further and further away into the country for his product until at this time the distance that he is able to go is only limited by the number of miles a milk train can travel in 18 hours.

This increased demand by the city for fluid milk has been a continual encroachment upon the natural supply of the butter and cheese manufacturers and as this demand has grown the butter and cheese factories are seeking other territory. At this time the great condenseries in this State are finding it more profitable

to move their factories to other districts, not only where the cost of production is probably cheaper, but where the quantity of production is vastly greater. It might be said at this time that the dairies of Illinois are producing one hundred pounds per day per dairy more than the dairies of this eastern territory.

With an approximate increase in the demand of about 2,500 cans per day per year in the last fifteen years there has developed a problem that is going to tax the resources of the entire state to find a fair solution. In order to meet the future demand that is bound to be made by the city consumer some inducement to more intensive farming must be made in order to increase the supply. True, the supply has increased, but in no way like the demand.

An interesting study in monthly costs has been prepared as per Exhibit No. 12, not to show exact costs but more to show comparative costs and profit and loss by months. It naturally prompts the question of a varying price to the consumer at different periods of the year and is included herewith for whatever benefit the Committee may derive from it.

In conclusion, it is respectfully recommended that some means be taken to give this problem the painstaking study that it requires, to the end that strict application to a study of the problems be made in such a way that the possibility of our State losing its dairy supremacy will be eliminated.

EXHIBIT No. 1

Statement Showing Monthly Prices Paid for Market Milk, and Percentage of Increase for Each Month from 1902 to 1916
(From Milk Company Records)

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	Per cent of in- crease
January.....	.033325	.035475	.036550	.035475	.036550	.0387	.043	.040850	.044075	.045150	.041925	.041925	.044075	.044075	.041065	23.2
February.....	.031175	.033325	.034400	.033325	.034400	.035475	.043	.040850	.043000	.044075	.040850	.039775	.041925	.041925	.039090	20.8
March.....	.029025	.031175	.032250	.031175	.032250	.033325	.0387	.036550	.038700	.039775	.037825	.038700	.040850	.040850	.038915	31
April.....	.026875	.030100	.030100	.030100	.030100	.032250	.0344	.032250	.034400	.032250	.034400	.036550	.034400	.032880	.034830	20.5
May.....	.022575	.024725	.023650	.023650	.024725	.027950	.02795	.026875	.027900	.026875	.028025	.031175	.029025	.027305	.024455	54.1
June.....	.018375	.021500	.011350	.024250	.020425	.023650	.03265	.022575	.023650	.027950	.028000	.027950	.027950	.026015	.028165	54.7
July.....	.020425	.022575	.022575	.022575	.023650	.026875	.02687	.025800	.027950	.027950	.030100	.033325	.031175	.029455	.031605	48.2
August.....	.023650	.025800	.024725	.025800	.025800	.029025	.02902	.029025	.037625	.033325	.037000	.035475	.034460	.032890	.035045	32.3
September.....	.027950	.030100	.030100	.030100	.030100	.032250	.03225	.031175	.038775	.035475	.038700	.037025	.036550	.034830	.036980	57.3
October.....	.032250	.032250	.031175	.031175	.033250	.033700	.03655	.040850	.041925	.043000	.040850	.043000	.043000	.041065	.050740	53.7
November.....	.034400	.034400	.033325	.034400	.036550	.037000	.04085	.043900	.044075	.043000	.043000	.045150	.045150	.043215	.052890	49.1
December.....	.035475	.036550	.035475	.036550	.038700	.043000	.04085	.044075	.045150	.043000	.043000	.045150	.045150	.043215	.052390	

EXHIBIT No. 2

Number of Cans of Milk Received in New York Market—Increases and Percentages of Increase From 1902-1916, Inclusive


	Forty  quart cans milk	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1902.....	10,197,387	796,128	720,723	835,240	826,475	917,438	924,101	927,825	874,488	852,461	869,318	831,766	821,424
1903.....	10,875,316	814,423	767,247	903,653	879,768	1,012,612	940,677	1,033,551	931,590	916,437	898,575	887,738	888,945
1904.....	11,640,225	978,903	849,681	904,714	927,348	1,039,421	1,042,981	1,060,865	1,040,748	965,754	1,003,274	938,154	932,382
1905.....	12,340,752	808,065	852,203	969,724	961,842	1,074,797	1,113,103	1,176,207	1,104,427	1,038,677	1,075,818	1,033,734	1,041,125
1906.....	13,762,629	996,967	827,870	1,088,947	1,095,481	1,213,485	1,267,494	1,285,875	1,238,220	1,196,602	1,177,888	1,117,440	1,122,628
1907.....	14,327,154	1,096,032	1,011,287	1,156,831	1,145,727	1,280,937	1,306,402	1,374,717	1,269,171	1,209,616	1,189,033	1,136,399	1,151,103
1908.....	14,511,787	1,172,842	1,071,433	1,176,419	1,171,135	1,295,329	1,327,714	1,354,171	1,247,100	1,176,698	1,215,658	1,153,389	1,183,809
1909.....	15,026,145	1,182,842	1,069,992	1,245,218	1,216,713	1,326,117	1,357,904	1,361,480	1,271,673	1,237,106	1,304,427	1,211,422	1,225,917
1910.....	16,820,330	1,195,874	1,138,794	1,173,918	1,302,937	1,405,862	1,418,830	1,431,188	1,359,604	1,293,642	1,324,467	1,283,687	1,296,227
1911.....	16,757,197	1,293,355	1,205,841	1,379,016	1,342,158	1,534,396	1,483,741	1,588,428	1,467,918	1,387,649	1,385,329	1,343,096	1,346,251
1912.....	17,323,230	1,352,606	1,292,947	1,425,677	1,380,210	1,538,822	1,576,437	1,577,102	1,471,417	1,370,849	1,462,123	1,389,190	1,425,850
1913.....	17,947,797	1,423,016	1,323,068	1,493,990	1,449,505	1,584,109	1,633,209	1,635,029	1,538,007	1,476,098	1,480,096	1,437,883	1,507,555
1914.....	18,157,724	1,467,814	1,355,036	1,496,036	1,466,650	1,657,109	1,644,197	1,595,075	1,551,823	1,494,944	1,507,886	1,435,565	1,500,733
1915.....	19,077,991	1,498,316	1,470,257	1,580,802	1,572,580	1,666,255	1,657,386	1,724,495	1,671,198	1,632,585	1,598,047	1,529,698	1,539,372
1916.....	19,352,228	1,564,621	1,458,359	1,603,484	1,571,180	1,738,925	1,724,110	1,816,800	1,737,874	1,647,636	1,584,292	1,495,666	1,589,281
Increase, 1916 over 1902.....	9,154,841	768,493	737,636	768,244	744,703	821,487	820,009	888,975	874,488	795,175	494,974	664,000	767,857
Per cent of increase..	89.7	96.5	102.3	91.9	90.1	89.5	88.7	95.8	101	93.2	56.9	79.8	93.4

EXHIBIT No. 3

Statement Showing 40-Quart Cans of Milk, Cream and Condensed Milk, and Total Supply of Milk and Cream, etc., in Terms of Plain Milk, Allowing Five Cans of Cream to One Can of Milk

	Forty-quart cans milk	Forty-quart cans cream and condensed milk	Total supply of milk cream and condensed milk in cans of plain milk allowing five cans of milk to one can of cream	Increase in quantity over previous year	Per- centage of increase over previous year	Daily average cans of milk per day	Daily average cream and condensed milk in cans of plain milk	Average price paid for milk per quart	Highest	Lowest
1902.....	10,197,387	493,707	12,665,922	606,417	5.2	27,938	34,702	2.88	3.75	2.25
1903.....	10,875,516	549,871	13,624,871	958,949	7.5	29,798	37,328	2.88	3.50	2.25
1904.....	11,640,225	598,218	14,634,315	1,006,444	7.4	31,804	40,078	2.75	3.75	2.00
1905.....	12,349,752	709,976	15,899,632	1,268,317	8.6	33,835	43,580	2.89	3.50	2.00
1906.....	13,762,629	747,920	17,502,229	1,602,597	10.1	37,706	47,951	3.01	3.75	2.25
1907.....	14,327,154	733,925	17,996,779	494,550	2.8	39,252	49,802	3.35	4.00	2.50
1908.....	14,511,787	685,406	17,938,817	*87,962	*0.3	39,650	49,010	3.29	4.00	2.25
1909.....	15,026,145	736,568	18,688,990	750,173	4.1	41,167	51,271	3.37	4.25	2.25
1910.....	15,920,330	815,598	19,998,320	1,290,385	6.8	43,344	54,808	3.67	4.25	3.00
1911.....	16,757,197	903,799	21,276,192	1,371,367	6.8	45,910	58,291	3.36	4.25	3.00
1912.....	17,323,250	900,131	21,822,883	547,060	2.5	47,331	59,628	3.68	4.25	3.00
1913.....	17,947,797	943,947	22,667,582	843,647	3.9	49,172	62,103	3.53	4.00	2.75
1914.....	18,157,734	964,159	22,978,519	310,987	1.3	49,747	62,952	3.51	4.25	2.65
1915.....	19,077,991	987,336	24,014,871	1,036,152	4.5	52,968	65,993	3.55	4.25	2.75
1916.....	19,352,228	1,021,487	21,459,663	444,992	1.8	52,875	66,830	3.87	5.22	2.75
Increase, 1916 over	9,154,841	527,780	11,783,741	.....	.....	.....	.....	.99	.....	.....
Per cent of increase....	89.7	106.8	93.3	.....	.....	.....	.....	34.3	.....	.....

* Decrease.

EXHIBIT No. 4

Statement of Railroad Shipments of Milk and Cream to Metropolitan District for Years 1902-1916 Inclusive

	1902			1903			1904		
	Forty-quart cans	Per-centage of total	Daily average	Forty-quart cans	Per-centage of total	Daily average	Forty-quart cans	Per-centage of total	Daily average
Erie R. R.	1,732,059	16.2	4,745	1,883,799	16.5	5,161	2,022,618	16.5	5,526
Harlem R. R.	1,556,596	5.2	1,524	1,540,917	4.7	1,482	440,918	3.6	1,205
New York, Ontario and Western.....	1,836,841	17.2	5,032	1,916,547	16.8	5,251	2,112,367	17.2	5,771
New York, Susquehanna and Western.....	727,303	6.8	1,993	768,620	6.8	2,106	788,781	6.4	2,155
Northern R. R.	119,471	1.1	1,327	124,107	1.1	1,340	80,193	0.6	2,219
West Shore R. R.	640,105	6.0	1,754	714,694	6.2	1,958	767,565	6.3	2,097
New York, New Haven and Hartford.....	402,221	3.8	1,102	432,737	3.8	1,186	484,582	3.9	1,824
Delaware, Lackawanna and Western.....	1,710,460	16.0	4,686	1,840,995	16.1	5,044	2,057,593	16.8	5,622
New York Central, long haul.....	1,750,264	16.4	4,795	1,868,262	16.4	5,119	2,119,524	17.3	5,791
Central R. R. of New Jersey.....	59,090	0.5	162	60,144	0.5	165	65,848	0.6	180
H. R. T. Company.....	227,453	2.1	623	259,148	2.2	710	217,289	1.7	594
Lehigh Valley.....	710,231	6.7	1,947	796,417	7.0	2,182	861,555	7.3	2,354
Pennsylvania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other sources.....	219,000	2.0	600	219,000	1.9	600	219,600	1.8	600
Total.....	10,691,094	100.0	29,290	11,425,387	100.0	31,304	12,238,443	100.0	33,438

EXHIBIT No. 4 — (Continued)

	1908			1909			1910		
	Forty-quart cans	Per- centage of total	Daily average	Forty-quart cans	Per- centage of total	Daily average	Forty-quart cans	Per- centage of total	Daily average
Erie R. R.	2,610,626	17.2	7,133	2,433,030	15.5	6,666	2,413,376	14.5	6,612
Harlem R. R.	2,603,807	4.0	1,650	760,752	4.8	2,084	1,077,758	6.4	2,953
New York, Ontario and Western	2,128,267	14.1	5,815	2,370,677	15.1	6,495	2,328,353	13.9	6,379
New York, Susquehanna and Western	749,082	4.9	2,048	729,782	4.6	1,999	734,891	4.4	2,013
Northern R. R.	795,719	5.2	2,174	772,238	4.9	2,116	804,752	4.7	2,205
West Shore R. R.	600,612	3.9	1,641	618,878	3.9	1,695	630,325	3.8	1,728
New York, New Haven and Hartford	2,599,109	17.1	7,701	2,646,403	16.8	7,250	2,777,636	16.5	7,610
Delaware, Lackawanna and Western	3,320,481	21.9	9,072	3,628,592	23.0	9,942	4,057,038	24.4	11,115
New York Central, long haul	17,164	0.1	47	100,088	0.6	274	95,793	0.6	262
Central R. R. of New Jersey	130,938	0.9	357	100,088	0.6	274	95,793	0.6	262
H. R. T. Company	1,403,388	9.2	3,834	1,446,665	9.2	3,964	1,560,457	9.3	4,275
Lehigh Valley	238,000	1.5	650	255,500	1.6	700	255,500	1.5	700
Pennsylvania									
Other sources									
Total	15,197,193	100.0	41,522	15,762,605	100.0	43,185	16,735,879	100.0	45,852

EXHIBIT No. 4 — (Continued)

	1911			1912			1913		
	40-quart cans	Per centage of total	Daily average	40-quart cans	Per centage of total	Daily average	40-quart cans	Per centage of total	Daily average
Erie R. R.	2,631,281	14.9	7,209	2,700,495	14.8	7,378	2,691,120	14.3	7,373
Hartford R. R.	1,119,043	6.3	3,066	1,205,112	6.7	3,263	1,337,704	7.1	3,665
New York, Ontario and Western	2,294,315	12.9	6,286	2,495,326	14.0	6,818	2,377,497	12.5	6,514
New York, Susquehanna and Western	2,731,045	15.2	2,003	718,042	3.9	1,982	682,911	3.7	1,871
Northern R. R.	749,278	4.2	2,053	797,161	4.4	2,178	837,176	4.4	2,294
West Shore R. R.	674,697	3.8	1,848	561,670	3.2	1,535	492,557	2.6	1,340
New York, New Haven and Hartford	2,873,285	16.4	7,872	3,069,375	16.8	8,386	3,108,161	16.4	8,507
Delaware, Lackawanna and Western	4,458,419	25.2	12,215	4,483,270	24.2	12,249	4,862,138	25.8	13,821
New York Central, long haul	103,475	0.6	283	114,788	0.7	314	208,068	1.1	582
Central R. R. of New Jersey	1,760,658	10.0	4,824	1,821,622	9.9	4,977	1,929,391	10.2	5,286
H. R. T. Company	255,500	1.5	700	256,200	1.4	700	95,852	0.5	262
Lehigh Valley							255,500	1.4	700
Pennsylvania									
Other sources									
Total	17,650,996	100.0	48,359	18,223,361	100.0	49,790	18,872,015	100.0	51,704

EXHIBIT No. 4 — (Continued)

	1914			1915			1916		
	40-quart cans	Per centage of total	Daily average	40-quart cans	Per centage of total	Daily average	40-quart cans	Per centage of total	Daily average
Erie R. R.	2,706,875	15.1	7,416	2,922,888	15.5	8,008	2,648,018	15.2	7,235
Harlem R. R.	1,885,689	6.9	5,166	1,495,214	7.3	4,096	1,557,453	7.5	4,255
New York, Ontario and Western.	2,453,678	13.5	6,723	2,511,751	13.4	6,882	2,195,967	12.9	6,000
New York, Susquehanna and Western.	568,878	2.9	1,558	574,565	2.6	1,574	553,434	2.6	1,512
Northern R. R. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Shore R. R.	824,528	4.6	2,259	884,613	4.8	2,424	852,078	4.8	2,328
New York, New Haven and Hartford.	352,329	1.6	965	334,165	1.5	915	260,273	1.1	712
Delaware, Lackawanna and Western.	3,160,104	15.5	8,658	3,176,246	14.7	8,702	3,080,980	14.5	8,418
New York Central, long haul.	4,995,434	26.5	13,686	5,205,720	26.1	14,262	4,978,591	25.8	13,603
Central R. R. of New Jersey. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....
H. R. T. Company.	107,756	0.5	295	.....	.....	.....	.....	.....	.....
Lehigh Valley.	1,957,847	9.8	5,364	2,123,704	10.2	5,818	2,135,355	10.2	5,834
Pennsylvania.	351,248	2.0	963	471,458	2.4	1,232	724,069	3.9	1,978
Other sources.	255,500	1.1	700	365,000	1.5	1,000	366,000	1.5	1,000
Total.	19,619,846	100.0	53,753	20,365,324	100.0	54,973	19,352,228	100.0	52,875

EXHIBIT No. 5

Statement Showing Operating Costs of Sixteen Limburger Cheese Factories, 1915-1916
(From Committee Records)

Pounds of milk purchased	Purchase price	Average price	Low price	High price	Pounds of cheese made	Average pounds milk per pound of cheese	Cost of manufacturing	Average cost manufacturing pound of cheese	Investment
307,591	\$891 81	1.29	1.29	1.29	35,423	8.7	\$840 46	.023	\$1,000
215,324	2,756 15	1.28	1.28	1.28	23,294	8	711 56	.028	1,000
345,599	4,468 23	1.29	1.29	1.29	40,835	8.4	461 26	.023	1,000
607,011	7,830 44	1.29	1.29	1.29	63,910	9.2	1,469 92	.022	1,000
280,072	3,598 93	1.28	1.28	1.28	32,579	8.6	870 88	.026	1,000
909,834	12,628 21	1.38	1.09	1.76	101,571	8.9	2,096 70	.020	2,800
382,836	4,900 36	1.28	1.28	1.28	43,448	8.8	1,228 81	.028	.....
595,477	7,056 39	1.18	1.00	1.45	66,964	8.8	1,237 00	.018	300
745,771	8,837 39	1.18	1.00	1.45	85,086	8.7	1,323 00	.015	400
355,893	4,217 33	1.18	1.00	1.45	39,543	9	850 75	.021	300
610,001	8,029 86	1.30	1.09	1.60	74,594	8.1	1,486 03	.019	1,350
368,314	4,885 63	1.32	1.09	1.60	45,036	8.1	1,042 54	.023	2,200
442,625	5,156 58	1.16	1.16	1.16	41,376	10.6	907 51	.021	3,500
645,538	8,055 16	1.28	1.28	1.28	58,156	11.1	1,537 48	.026	2,000
608,400	7,148 71	1.17	1.17	1.17	64,522	9.5	1,619 00	.025	1,000
492,376	5,664 82	1.15	1.15	1.15	41,242	11.1	981 31	.022	2,500

STATISTICS

Average cost to make one pound of limburger cheese.....	.0225
Average investment in cheese factories.....	\$1,423 33
Average number of pounds of milk in one pound of limburger cheese.....	9.1 pounds

EXHIBIT No. 6
Statement of Operating Costs, in 17 Type Factories, of American Cheese Factories
(From Committee Records)

Pounds of milk purchased	Purchase price	Average price	Low price	High price	Pounds of cheese made	Average pounds milk per pound of cheese	Cost of manufacturing	Average cost manufacturing pounds of cheese	Investment
715,468	\$10,429 62	1.45	1.19	1.85	70,850	10	\$403 64	.006	\$2,000
510,148	6,543 91	1.27	1.22	1.38	36,332	14	443 70	.012	2,100
1,070,656	14,872 04	1.37	1.25	1.46	99,878	10.8	512 04	.005	4,500
1,330,915	19,790 74	1.48	1.48	1.48	122,488	10.8	882 47	.007	1,600
1,710,295	19,096 03	1.28	1.28	1.28	68,866	10.3	902 88	.013	.....
970,100	12,608 01	1.30	1.07	1.60	96,767	9.9	1,784 64	.018	.....
1,089,310	14,719 44	1.33	1.17	1.62	112,705	9.7	1,541 48	.012	1,125
483,423	6,513 32	1.11	1.30	1.60	58,180	8.4	1,183 51	.019	.....
379,421	4,870 20	1.28	1.28	1.60	43,835	8	1,139 83	.025	2,325
355,915	4,555 72	1.28	1.28	1.28	44,774	7.9	1,019 29	.022	1,925
812,207	10,307 98	1.26	1.25	1.60	97,779	8.3	2,332 00	.023	1,900
915,302	11,777 17	1.28	1.09	1.53	85,598	13.8	1,373 86	.015	.....
.....	.....	.....	.....	.....	90,000	.....	453 02	.005	1,200
779,707	9,731 12	1.25	1.08	1.55	73,555	10.6	1,175 80	.016	.....
407,456	5,500 66	1.44	1.44	1.44	37,394	10.6	536 60	.014	2,000
673,241	9,358 05	1.39	1.39	1.39	64,751	10.4	928 16	.014	.....
1,533,721	18,881 14	1.23	.99	1.67	136,799	11.2	1,301 09	.009	.....
487,372	.....	.....	.....	.....	48,105	10.1	733 26	.002	900

STATISTICS

Average pounds of milk to pound of cheese..... 10.2 pounds
 Average cost of manufacturing pound of cheese..... .013
 Average investment in cheese factory..... \$1,198 61

EXHIBIT No. 7

*Statement of Operating Costs for Butter Factories
(From Committee Records)*

Pounds of milk and cream purchased	Pounds of butter made	Average pounds of milk used	Cost of manufacturing	Average cost per pound of manufacturing	Investment
1,487,673	74,011	20.1	\$2,277 00	.030	\$4,150 00
1,159,920	63,810	18.1	1,633 00	.025	2,450 00
469,500	23,475	20.0	7,469 49	.021	3,000 00
3,083,800	142,575	21.6	4,105 70	.028	5,000 00
811,830	41,358	19.0	2,066 88	.05	4,600 00
2,160,865	99,545	21.0	3,120 00	.02	4,500 00
677,486	45,421	14.0	2,365 86	.041	2,600 00
1,208,273	53,438	22.0	2,918 92	.052	5,250 00
397,473	15,393	25.0	450 00	.03	1,200 00
679,183	26,154	25.0	450 00	.017	1,200 00
*1,132,069	141,648	23.0	3,211 23	.023	8,000 00
1,532,000	53,500	28.0	1,705 00	.033	2,650 00
2,388,337	108,304	22.0	2,420 00	.022	3,800 00
*2,904,673	257,346	19.0	8,726 70	.034	8,734 52
270,264	87,537	30.0	2,901 18	.033	4,750 00

Statistics

Average pounds of milk in pound of butter.....	21.8
Average cost of making one pound of butter.....	.0306
Average investment in butter factory.....	\$4,125.63

* Includes cream.

EXHIBIT No. 8

*Statement Showing Approximate Decrease in Pounds of Milk Yielded Per Day
Per Dairy in New York State for Past 15 Years
(From Milk Company Records)*

Year	Average pounds per day per dairy
1902.....	278
1903.....	282
1904.....	283
1905.....	283
1906.....	266
1907.....	240
1908.....	235
1909.....	235
1910.....	255
1911.....	261
1912.....	246
1913.....	238
1914.....	233
1915.....	227
1916.....	204

Decrease in average pounds per day per dairy, 1902-1915, 52.
Per cent of decrease, 18.7 per cent.

EXHIBIT No. 9

*Statement Showing Increasing Freight Rates on Milk Since 1902**Zone No. 1—1 to 40 Miles*

	MILK IN CANS, PER CAN		MILK IN QUART BOTTLES, PER 40 QUARTS	
	Carload shipments	Less than carload shipments	Carload shipments	Less than carload shipments
Aug. 1, 1902 — Sept. 30, 1903.....	.184	.235	.248	.31
Oct. 1, 1903 — Sept. 30, 1909.....	.184	.23	.258	.322
Oct. 1, 1909 — Feb. 22, 1915.....	.201	.23	.282	.322
Feb. 23, 1915 — to date.....	.211	.242	.296	.338
Per cent of increase since 1902.....	9.2	2.9	15.3	.9

Zone No. 2—41 to 100 Miles

	MILK IN CANS, PER CAN		MILK IN QUART BOTTLES, PER 40 QUARTS	
	Carload shipments	Less than carload shipments	Carload shipments	Less than carload shipments
Aug. 1, 1902 — Sept. 30, 1903.....	.208	.26	.272	.34
Oct. 1, 1903 — Sept. 30, 1909.....	.208	.26	.291	.364
Oct. 1, 1909 — Feb. 22, 1915.....	.228	.26	.319	.364
Feb. 23, 1915 — to date.....	.239	.273	.334	.382
Per cent of increase since 1902.....	14.9	5.	22.4	12.4

Zone No. 3—101 to 190 Miles

	MILK IN CANS, PER CAN		MILK IN QUART BOTTLES, PER 40 QUARTS	
	Carload shipments	Less than carload shipments	Carload shipments	Less than carload shipments
Aug. 1, 1902 — Sept. 30, 1903.....	.232	.29	.296	.37
Oct. 1, 1903 — Sept. 30, 1909.....	.232	.29	.325	.406
Oct. 1, 1909 — Feb. 22, 1915.....	.254	.29	.355	.406
Feb. 23, 1915 — to date.....	.267	.305	.373	.426
Per cent of increase since 1902.....	15.	5.2	26.	15.1

EXHIBIT No. 9 — (Continued)

Zone No. 4—over 190 Miles

	MILK IN CANS, PER CAN		MILK IN QUART BOTTLES, PER 40 QUARTS	
	Carload shipments	Less than carload shipments	Carload shipments	Less than carload shipments
Aug. 1, 1902 — Sept. 20, 1903.....	.256	.32	.32	.40
Oct. 1, 1903 — Sept. 30, 1909.....	.256	.32	.358	.448
Oct. 1, 1909 — Feb. 22, 1915.....	.28	.32	.392	.448
Feb. 23, 1915 — to date.....	.294	.336	.412	.47
Per cent of increase since 1902.....	14.8	5.	28.7	17.5

EXHIBIT No. 10

Statement Showing Increase and Percentage of Increase in Price of Milk to Consumer for Past 15 Years

DATE	Pasteurized B (quarts)	Pasteurized B (pints)	Pasteurized A (quarts)
Up to 1907.....	\$0.08	.....	.....
1908.....	.09	.....	.....
1909.....	.08	\$0.05	.....
1910.....	.09	.05	.....
1911.....	.09	.05	.....
1912.....	.09	.05	\$0.10
1913.....	.09	.05	.....
1914.....	.09	.05	.....
1915.....	.09	.05	.....
1916.....	.10	.06	.11
October, 1916.....	.....	.....	.12
Percentage of increase.....	.25	.20	.20

EXHIBIT No. 11

Statement of Wage Increase to Milk Wagon Driver in New York City for Past 15 Years

DATE	Weekly salary	Commission	Average weekly salary
1902.....	\$13 00	\$0.006 per point	\$15 00
1903.....	13 00	.006 per point	15 00
1904.....	13 00	.006 per point	15 00
1905.....	13 00	.006 per point	15 00
1906.....	13 00	.006 per point	15 00
	14 00		
1907.....	15 00	.007 per point	18 00
	16 00		
1908.....	16 00	.007 per point	18 00
1909.....	16 00	.007 per point	18 00
1910.....	16 00	.007 per point	18 00
1911.....	16 00	.007 per point	18 00
1912.....	16 00	.007 per point	18 00
1913.....	16 00	.007 per point	18 00
1914.....	16 00	.007 per point	18 00
1915.....	16 00	.007 per point	18 00
	19 00		
1916.....	20 00	.007 per point	22 00
	21 00		

Percentage of increase, 46.6.

EXHIBIT No. 12

*Statement Showing Monthly Cost, Profit and Loss, on the Sale of a Nine Cent Bottle of Milk, based on Prices of July 1, 1915 — June 30, 1916
(Compiled from the books of various distributors and averaged)*

MONTH	Unit selling price	Total unit cost	Unit profit	Unit loss	Unit cost, of milk	Unit country charges	Unit freight charges	Unit manufac- turing expense	Delivery expense	Clerical and admin- istration expense
January.....	\$0 .09	\$0 .0901	\$.0006	\$0 .0001	\$0 .0422	\$0 .0029	\$0 .0043	\$0 .0089	\$0 .0237	\$0 .0319
February.....	.09	.0894	.0037	.....	.0419	.0028	.0093	.0083	.0238	.0319
March.....	.09	.0883	.0044	.....	.0399	.0027	.0093	.0079	.0234	.0319
April.....	.09	.0836	.0044	.....	.0365	.0029	.0093	.0080	.0238	.0319
May.....	.09	.0765	.0135	.....	.0287	.0031	.0093	.0082	.0241	.0319
June.....	.09	.0765	.0135	.....	.0281	.0031	.0093	.0083	.0241	.0319
July.....	.09	.0820	.0080	.....	.0316	.0033	.0093	.0089	.0248	.0319
August.....	.09	.0880	.0020	.....	.0373	.0034	.0093	.0090	.0259	.0319
September.....	.09	.0901	.....	.0001	.0406	.0034	.0093	.0086	.0251	.0319
October.....	.09	.0915	.....	.0015	.0429	.0032	.0093	.0084	.0246	.0319
November.....	.09	.0939	.....	.0039	.0472	.0028	.0093	.0082	.0233	.0319
December.....	.09	.0937	.....	.0037	.0472	.0027	.0093	.0083	.0231	.0319

SCHEDULE No. 1

*Statement of Zones Established as a Basis for Freight Rates on Milk Delivered to
New York City May 14, 1897*

	MILK — 40 QUARTS			CREAM — 40 QUARTS		
	Cans	Quart bottles	Pint bottles	Cans	Quart bottles	Pint bottles
Zone No. 1: 1 to 40 miles.	\$0.23	\$0.31	\$0.35	\$0.41	\$0.49	\$0.53
Zone No. 2: 41 to 100 miles.	.26	.34	.38	.44	.52	.56
Zone No. 3: 101 to 190 miles.	.29	.37	.41	.47	.55	.59
Zone No. 4: over 190 miles...	.32	.40	.44	.50	.58	.62

PROFITS IN MILK DISTRIBUTION

The average reader in the limited amount of time will not be able to draw from the accountant's reports herewith set out in full the many interesting conclusions that are to be drawn therefrom and the Committee has undertaken with the aid of the accountant to set out some of these conclusions in the following schedules, leaving to the student of those matters to draw from the full reports such lessons as they afford and to check, if he so desires, the outstanding facts presented in the following schedules. Perhaps the most interesting at this time will be an examination of the costs entering into the 9-cent bottle of milk, which are shown on the following pages:

EXHIBIT No. 256

STATEMENT OF CHARGES FOR PRODUCING AND DELIVERING A NINE-CENT QUART OF PASTEURIZED GRADE " B " MILK — OFFERED IN TESTIMONY BEFORE THE JOINT LEGISLATURE COMMITTEE ON DAIRY PRODUCTS (HON. CHARLES W. WICKS, CHAIRMAN), BY HERBERT B. HAWKINS, C. P. A.

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EXHIBIT No. 256

January 20, 1917.

Agreeable to your request I am attaching herewith, a composite statement of the cost of producing and distributing a sufficient quantity of milk to be sold as a quart in a bottle at .09.

These figures are the result of a fine analysis of production and distributing costs of five of the larger companies in Greater New York, together with information as to costs contained in various reports received from other companies in this city and throughout the state, and turned over to me by your Committee for examination.

The figures herein contained are not typical of all milk handled but of such milk, popularly known as Grade "B" pasteurized milk sold during the year 1915 or during fiscal period of 1915-1916 at a price of .09 per quart.

In conclusion, so that no false impression may be created, I wish to say that the average selling price of all milk purchased, whether disposed of as milk, cream, cheese or butter, is much less than .09, the subject of which will be taken up in detail in a later report to the Committee.

Very truly yours,

HERBERT B. HAWKINS,
Certified Public Accountant.

EXHIBIT No. 256

1915-1916

Selling price . . . . .		.09
Cost of milk . . . . .	.03797	
Country charges . . . . .	.00297	
Teaming and hauling . . . . .	.00294	
Pasteurization . . . . .	.00370	
Bottles and caps . . . . .	.00241	
Delivery expenses . . . . .	.02384	
Freight . . . . .	.00934	
Adm., clerical and adv. . . . .	.00319	
	<hr/>	
Total cost . . . . .	.08636	
Profit. . . . .	.00364	
	<hr/>	
Total. . . . .	.09000	.09
	<hr/>	<hr/>

In connection, however, with this Exhibit No. 256, it is important for everyone interested to consider the following statement made by the accountant:

STATEMENT A

The profit or loss on the 9-cent bottle of Grade "B" pasteurized milk described in Exhibit 256 does not provide for any reduced profit or losses on milk purchased by the distributor for which he may have no retail market at nine cents a quart, but instead thereof necessarily disposes of the same at wholesale prices or in other forms, such as sour milk, sour cream, pot cheese, butter, etc., or which may be lost or destroyed, or spoil on his hands for some other reason.

Likewise, the costs included in Exhibit 256 do not provide for any earnings on capital invested, or for the creation of capital reserves of any kind. Such necessary business overheads as capital, interest, or earnings must be provided for in addition thereto. In other words, they are to be found, if at all, out of the item of .00364 set out therein. How important a bearing these two factors have upon the average profit of milk distributors is shown by the following statement:

By averaging the net profits of the companies used to reach the conclusions shown in Exhibit 256, it is shown that the average profit of those companies on each quart of milk bought, regardless of whether it was disposed of as market milk, butter, cheese, or otherwise, was found to be .0027, out of which item must be found all capital earnings, dividends and capital reserves for the carrying on of the business.

In other words, the average profit of .0036 on the 9-cent bottle was reduced to the average of .0027 on the entire purchases by lower profits or losses on wholesale milk, butter, cheese, or wasted product.

For comparative purposes, the following statement is made:

SCHEDULE B

Company	Trading profit on year's basis	Earning on tangible assets at book value exclusive of good-will, etc.	Tangible assets in business exclusive of good will, etc.
Borden Company, Farm Products Division, East and West, Chicago to New York.....	.0372%	.0574%	\$15,000,000 00
			(Estimated apportionment of capital.)
Clover Farms Company, Inc.....	.0314%	.0438%	\$540,678 64
By excluding a certain item of depreciation written off on the books of this company and criticized by the auditor, the capital earning item is made in the above company, .0554. The capital investment of this company would show earnings of 11 per cent on milk traffic, exclusive of reductions thereof shown in store operations.			
Alex. Campbell Company.....	.0387%	.0930%	\$808,593 46
Sheffield Farms Slawson-Decker Co.	.0304%	.0485%	\$6,227,171 46

It suggests itself that no ordinary business could be maintained on a trading profit, per dollar of sales, so low as shown by the above figures. It is possible to do so, however, in the milk business and pay dividends and establish reserves because of the quick and almost constant turnover of capital.

SCHEDULE C

Profits on Milk Handled

Company	Quarts of milk handled	Net profit per quart	Net profit per 100 pounds
Borden Company, Eastern branches, Buffalo and east.....	218,820,305	.002915	.1355
Clover Farms, Inc.....	19,536,650	.0024	.1115
Alex. Campbell Company, Inc.....	25,258,977	.002979	.1385
Sheffield Farms, Slawson-Decker Company.....	135,251,200	.00243	.1130
Average net profits.....		.0027 plus	.1246

It will be apparent from the above schedule that if these four companies, and undoubtedly all the others, had paid to the dairymen of the State during the year 1915, 1916, their entire profits, capital earnings and dividends, it would have brought to the dairymen less than 12½ cents per 100 pounds more than they actually did receive. But the dairymen have fairly established during the months from October, 1916 to April, 1917, an increased price of 45 cents to 50 cents per 100 pounds over the year in question, or an increase nearly four times greater than the average profit, dividends and earnings made by these companies during the prior year.

From these figures it becomes at once obvious that the cost of the product must be advanced to the consumer unless great economies are found in methods of distribution. Some light is thrown upon the varying profits of these companies by the following comparative table:

COST OF MILK PER HUNDRED POUNDS, JULY 1, 1915 TO JUNE 30, 1916

Company	Purchase price per quart	Purchase price per cwt.
Borden Company.....	.036847	\$1.713 plus
Clover Farms, Inc.....	.0355	1.6511 plus
Alex. Campbell Company, Inc.....	.035365	1.6447 plus
Sheffield Farms, Slawson-Decker Company...	.037757	1.7474 plus

Assuming the average daily consumption in New York city to be 2,200,000 quarts, the milk handled by the four above companies would be about 49 per cent of the whole. However, a large part of the milk referred to above as handled by the Borden Company does not reach the New York market at all, as those figures comprise the Eastern division in various cities in New York and other surrounding states, so that these companies probably do not supply 33 per cent. of the New York market.

UNNECESSARY COSTS OF DISTRIBUTION

It is easily determined, both from the audit of the books of the companies engaged in the distribution of milk in the city of New York and from the testimony of all concerned, that this business is conducted on an extremely competitive basis. All who have fairly studied the question can see that a large part of the cost

of distribution arises from the bitter competition existing in the distribution of the product. This competition does not consist in two or three route drivers standing at the apartment house door under-bidding each other for the privilege of delivering the morning's milk. Obviously while two drivers were engaged in that competition, the third would be supplying two or three of their regular customers; but it does apply to every other side of distribution that has been presented to the Committee. Customers are bought and paid for. The man who can control a group of customers is eagerly sought. Everything that can influence the customer or make it easy to reach him or control his trade is bought and paid for. An army of solicitors and sales agents are maintained to go about from block to block to procure customers. Every available agency is sought for this end. Great and expensive organizations are maintained purely and entirely devoted to carrying on the business on a competitive basis.

Overhead charges attributable to this work alone amount to an alarming sum, and it becomes difficult on the part of the concern with limited capital to meet this daily fierce competition. Only the strongest can engage in it and ultimately survive, and yet it is a purely competitive struggle. It is customary in referring to unnecessary expenses in milk distribution to refer to the fact that four or six or ten milk wagons and milk drivers visit the same block which one might well supply, but this ignores the really greater expense of the silent army of retainers that accompanies and follows the milk wagon in its daily round. This army is marshaled by each company and sets out daily to capture the other man's customers. Not only do we find in a single block six wagons and horses and drivers where one might well do the work, but on the same day we find operating in the same block six solicitors; six route superintendents having general charge and direction of their activities; six staffs of clerks and bookkeepers who will devote part of their time and attention to that block for that day, and each and every part of perhaps twenty other companies devoting to the certain block a portion of their time and the consumer's money in the struggle to ascertain which company shall survive in rendering its inhabi-

tants a single service. It may safely be said that no person of understanding has ever studied this question without reaching the conclusion that the distribution of milk is a public service, which, to be put upon an economic basis, requires public regulation to the end that all unnecessary services even of a competitive kind may be eliminated.

DISTRIBUTION OF MILK SHOULD BE A REGULATED PUBLIC SERVICE

The unnecessary competitive disbursement of one company examined into, amounted to nearly \$200,000 during the year in question. It is safe to assert that the consumer in the city of New York pays several millions of dollars annually for the privilege of having all the numerous purveyors of this necessity of life engage in attempts to serve him. During a period when labor costs in the production of milk were little considered and an abundant milk supply was at hand at a comparatively low price, this question did not assume the importance which it now has. Coupled with the ascending scale of costs in all other food products, the matter becomes at once acute. A milk supply is as much a daily necessity and even more so than either gas or electricity. While the milk dealer needs no public franchise except from the Department of Health, yet he must utilize every public instrumentality and franchise that exists in order to properly supply the daily demand. The railroad company is required to furnish its most efficient and fastest service. The ferry and express hasten to aid and co-operate. Without this constant co-operation of every public instrumentality, great suffering would result.

Enjoying each and every one of these public franchises and instrumentalities, and it being conceded that upon the supply of milk rests the health and life of the growing children of the cities, can it be said that this matter of distribution is not a subject of public regulation and control? There must be within the State sufficient reserve of police power upon this question, so vital to the public health and welfare, to insure the distribution of milk to the people of the State without interruption or delay, without fraud or oppression, and without being charged with the constant

burden of unnecessary expense. The time has come when this problem should be solved, if it is to be solved at all, and it certainly seems as if the dairymen of this State and the distributors with their invested capital, and the consumer, should co-operate to the end that these unnecessary competitive wastes be eliminated and the dairymen's milk brought to the consumer at the lowest possible expense. It is confidently believed that this will be done, by the business genius of our people, if the State by adequate legislation will permit.

The investigations of this Committee lead to the conclusion that under the present competitive system it takes almost as many men to bring the dairyman's milk to the consumer as there are dairymen engaged in the production of milk with all their employees. This is the result of the purely competitive basis upon which the business is handled. Three or four milk stations are being maintained with a separate force of employees to collect or receive the dairymen's milk at many points where one well equipped station with a competent force could do all the collecting at one-fifth the present expense. This unnecessary duplication of service follows with all its attendant overhead and capital investment from the country milk station until the bottle of milk is finally deposited at the consumer's door. A large part of this, in the judgment of this Committee, could and should be eliminated. If the people of the cities are to have any relief from the ascending scale of prices, these factors must be eliminated. It only remains to devise satisfactory methods so to do. The only solution possible is to limit and leave only those in the field which the service actually requires. This is just as obvious in the case of milk as it is in gas or any other daily necessity supplied in small quantity to the consumer. From these conclusions there seems to be no escape.

It is believed by the Committee that a State Department equipped with all the power permitted by our laws should be created, having the capacity to thoroughly analyze and comprehend the present situation, and having realized and comprehended it, to provide ways and means, so far as our laws and the welfare of the State permit, to consolidate this service, not only in New York, but in every city of the State, to the end that the expense thereof be reduced to a minimum, that the profits realized

thereon be only such as are recognized as fair and reasonable. In this way it is believed that the consumer can secure this necessity of life at a price which will afford a fair return to the producer and a just earning, and only a just earning, to the capital engaged in distribution. The dairyman of the State, ignoring and disregarding the law which has become practically ineffectual for any purpose, has so organized as to protect his own interests, without action by the State government. He contends that the State government disregarded his distress and that he was forced to take action from economic necessity. Those who contend that these matters had best be regulated by the law of supply and demand, pay no heed to the evident situation, that the law of supply and demand had absolutely ceased to operate in regard to the milk supply, because of the effective organization of the consumer in a city society, and the lack of a similar organization in the social relations of the producer. The considerations here stated take no note of the importance to the State of the continuance of a prosperous dairy industry, which is as important as any phase of the matter here considered, but which is discussed in other parts of this report.

HOW TWO NEW MIDDLEMEN WERE CREATED

As before suggested, the last few years show the development of a new class of middlemen in the milk traffic. Formerly, and it might be said still, the distributor collected the milk at the country station, prepared it, transported it to the city and delivered it to the customer. Of late years groups of dairymen, in order to control the disposition of their milk, have undertaken through the formation of companies, to construct milk stations of their own. These have been operated in two ways: First, by lease to the milk companies, the lease carrying with it provisions designed to afford the dairymen a better price for their milk during the continuance of the lease. Second, by being operated by the dairymen's company and the product of the station disposed of from time to time to the highest bidder in the open market.

The last method of operation obviously is not welcome to the distributor. The distributor regards such handling of the milk as rendering his yearly supply uncertain and permitting the control of the price to be paid from year to year to rest in the hands of

the dairyman. Therefore the dairymen's company or milk station, unless leased to the larger milk companies, found it difficult to locate a buyer. The distributors, in their anxiety to keep the control of the milk in their own stations, left the field open for the development of a class of middlemen who promptly took over the milk supply from the dairymen's station. Their operations were attended with success during the past two and one-half years because of a scarcity created by war conditions and the attendant high price for cheese and butter. Under other conditions, the operation of these middlemen would probably have resulted in lower prices for the dairymen attempting to operate their stations.

Under the prevailing conditions it afforded an opportunity for the middlemen to make large profits for the time being and those profits the middleman promptly proceeded to take in the good old way. The large distributor, being short of the necessary daily supply from time to time, would pay a high premium to the new broker or middleman. This broker or middleman had no capital investment whatever, but was availing himself of the dairymen's capital and needs created by the European war. On the one hand he assumed to sell the milk for the dairymen on a certain commission which carried with it the necessary implied agreement that he would secure the best price possible. On the other hand, he either sold it to himself or charged a further commission and profit for himself when he turned it over to the distributor. The development of this type of middleman and his methods are best exemplified by the following evidence received by the Committee, which is here presented without further comment:

JOHN F. DOYLE, called as a witness, being sworn, testified:

"I live at No. 970 St. John's Place, Brooklyn, and am the president of the Modern Dairy Company. This company was incorporated in August, 1914, with a capital stock of \$50,000, \$20,000 of that has been issued; \$10,000 of it was sold when we incorporated,—the balance since. The incorporators were myself, William J. McKay, and William Richmond. We took all the stock that was issued at that time. That was \$4,500 par value. Each of us received \$1,500 par value of the stock. Richmond lives in Sharpstown, New Jersey, and had been in the milk business before. He owned a plant at Unionville. That has been recently sold to

the Hires Chocolate Company. He was operating the plant at Unionville and Sharpstown, New Jersey, at that time. He brought the milk to the city and sold it in a wholesale way to milk dealers. I had been in the milk business prior to 1914 with the McDermott Dairy Company. Mr. McKay and I decided upon going into the business and then we met Richmond. The first year we were in business we got our milk from our creamery at Harford Mills. We bought a creamery from the Standard Butter Company. It is about 22 miles from Owego on the Lehigh Valley Railroad. We got there about an average of 70 cans a day of milk. We sold that in Brooklyn wholesale to restaurants, hotels, bakeries, lunch rooms, etc. Whatever we needed above that we got from Mr. Richmond at Unionville. We ran that way eight or nine months. Then my brother, James A. Doyle, came into the company from the Sheffield Farms. That was the spring of 1915. He took \$1,500 worth of stock. Then a young man by the name of John Marass took \$1,000 worth of stock; that is, he subscribed for it, but never paid for it. He only stayed a month. Then in November or December, 1915, Mr. N. A. Van San purchased the \$1,500 of stock that my brother had and became a director.

Mr. Ward.— This \$6,000 was all paid for in cash?

Mr. Doyle.— No, sir.

Mr. Ward.— How was it paid for?

Mr. Doyle.— \$2,000 was given to Mr McKay and myself for good will, trade, leases, etc. So that I paid \$500, McKay paid \$500 and Richmond \$1,500.

Mr. Ward.— That made \$2,500, so there was really \$2,500 in cash?

Mr. Doyle.— At the commencement, yes.

Mr. Ward.— What was that \$2,000 given for?

Mr. Doyle.— Leases, good-will or trade, etc.

Mr. Ward.— What trade?

Mr. Doyle.— The trade that I had promised to secure for the business when we started.

Mr. Ward.— Well, I suppose it was given to you because of your experience in this milk business.

Mr. Doyle.— Partially, yes; we had the promise of business; that is all; what we could do in the milk business. Richmond paid in cash and equipment. He furnished a horse and the balance in cash, so that I paid in \$500 in money; McKay paid in \$500 in money, and Richmond paid in \$1,250 in money, and a horse. That was real money and went into the bank account. Then my brother came in and paid in \$1,500 in money and went to work for the company and stayed with us until October or November and then went out. Mr. Van San bought his stock. I don't know how he bought it. After that, Van San was employed by our company. I had known him seven or eight months.

Mr. Ward.— During those 7 or 8 months, what had been his business?

Mr. Doyle.— He was salesman for country creameries and we purchased milk, cream and condensed milk from them. He was representing the Hamden Cooperative Creamery Company at Hamden, N. Y., and the Chemung Dairy Products Company was another. He sold it to us at a price. Whether he worked on a commission, straight salary or how, I don't know. He sold the milk either on a commission or salary basis for the cooperative companies and then we jobbed or wholesaled the milk to the general wholesale trade. He stayed with us about a year. He was treasurer of the company and went into the country and took care of the creamery work and made contracts for milk from November, 1915. Then he got out of the company and sold his stock back to the company, to the Modern Dairy Company. We paid for it out of our company funds. The stock certificates were turned over to us and they are now in our safe, fifteen of them, and the other forty-five Mr. Richmond has. Van San had sixty shares. First, he got my brother's fifteen shares. We had increased our capital to \$50,000. We gave one share to each stockholder for each share that was issued.

Mr. Ward.— That is, there were \$6,000 already issued of which \$3,750 had been paid for. Now you gave each one of those shareholders, you divided among Van San, McKay and Doyle \$6,000 more of new stock without getting any money for it.

Mr. Doyle.— Yes, 'sir.

Mr. Ward.— That was a stock dividend, or something.

Mr. Doyle.— Yes, sir.

Mr. Ward.— That is, they did not pay anything for it.

Mr. Doyle.— No, sir; and we gave Mr. Richmond \$2,500 worth of stock for 2,000 cans that he had. There was \$26,300 issued. That is all that was issued. The rest has not been issued.

Before we increased to \$50,000, Richmond had \$1,900 in stock. We at one time gave him \$400 for some equipment he gave us. I forget whether that was in 1915 or 1916, so he had at least \$1,900, and the other three had \$1,500 each at the time we increased the capitalization. There was \$7,900 issued, as I understand it. Marass never got any stock because he did not pay for it. In August, 1916, McKay had \$2,000 in stock and I had \$2,000 and Van San had \$2,000.

At the time Mr. Van San came in, there was \$500 worth of stock given to Mr. Van San as a bonus.

Mr. Ward.— For coming in?

Mr. Doyle.— For good-will of certain trade that he had. He was in the shipping business and he was shipping to different people, the Malone Dairy Company, Locust Farms, Clover Farms, here in the city. He was selling and that trade was turned over to the Modern Dairy Company. He was selling the goods for those cooperative creamery companies. He paid \$1,500 for stock and was donated \$500 more for this good-will,— the trade he turned over,— The Malone Dairy Company, Locust Farms, Clover Farms, different people. They were distributors who used to buy milk from him but instead of buying from him after that they bought from the Modern Dairy Company.

Mr. Ward.— Did Mr. Van San arrange that they were to buy from you?

Mr. Doyle.— Yes, sir.

Mr. Ward.— And for that he was to get \$500 in stock?

Mr. Doyle.— Yes, sir. Then I and McKay each took \$500 worth of stock as a part of our salary for the past year. We had been paid a salary, but it was not considered what we were worth or what we could earn at other places. That is, at the end of the

year it was not considered that we had been adequately paid so we were voted \$500 more and Van San was voted for his coming in. That made \$7,900. Then we increased the stock to \$50,000, and \$7,900 of the new stock was given to each of us as follows: Richmond got \$1,900; I got \$2,000; McKay got \$2,000, and Van San got \$2,000. That left stock issued \$15,800. That stock represented an initial cash payment of \$3,750 in money and one horse. Then we needed cans and Richmond had 2,000 and we gave him \$1.25 each in stock. Then he sold \$8,000 worth of stock; Richmond, McKay and Van San and myself each took \$2,000. We paid for that in cash. They actually paid cash into the concern and it went into our bank account. That made \$26,300 issued, but we purchased back \$6,000 from Van San, all he had after a year. We paid him \$1,500 in cash. Mr. Richmond paid him \$4,500 and the company gave Richmond a note for \$4,500. All that Van San had paid in for this \$6,000 worth was \$2,000 in money and whatever he paid my brother for his stock. That left the company with \$20,300 in stock outstanding. That stock represents \$8,250 in money and the horse and cans mentioned. We have issued no stock since.

Mr. Van San has been and is now representing farmers' creameries. He was selling milk for them. He is selling milk for certain cooperative plants on a commission. I believe he has an arrangement to get a certain per cent for selling. He sold that milk through our company, the Modern Dairy Company.

Mr. Ward.—I understand, then, that he sold that milk to your company, the Modern Dairy Company.

Mr. Doyle.—It was handled through our company, yes; it was sold to other customers by the Modern Dairy Company.

Mr. Ward.—And you bought it from Mr. Van San or through Van San?

Mr. Doyle.—Through Van San.

Mr. Ward.—Mr. Van San was then a member of this company and one of its directors?

Mr. Doyle.—Yes, sir.

Mr. Ward.— So that at the same time he was engaged as selling agent for the cooperative creameries, farmers' creamery company on a commission, he was selling it to his own company.

Mr. Doyle.— Yes, sir.

Mr. Ward.— Well, I should think he could not give good service either to the cooperative dairy farmers or to his company in which he was a large stockholder. That is, I should think his interests would have conflicted. I understand it is the policy of the State, through the Bureau of Foods and Markets, to prevent a man from being both a buyer and seller at the same time. Did you understand it that way?

Mr. Doyle.— No, sir; I didn't know there was any objection there. In fact, I would not see any harm in doing it that way.

Mr. Ward.— Mr. Van San appears to have been connected with the Bureau of Foods and Markets here; you knew that, didn't you?

Mr. Doyle.— I knew he was connected, but in what capacity I did not know.

Mr. Ward.— So that when he was selling milk for the dairymen through the Bureau of Foods and Markets, at the same time he was a stockholder and director in and selling it to his own company.

Mr. Doyle.— Yes, sir.

Mr. Ward.— And you think there is nothing immoral in that?

Mr. Doyle.— Immoral? No, I would not think so. The milk that Van San sold us we endeavored to sell at a profit; we had to stay in business. Mr. Van San as a stockholder participated in that profit.

Mr. Ward.— So he got two profits. He got one profit out of the milk by way of earnings of your company, and another profit out of the commissions paid to him as an agent of the farmers?

Mr. Doyle.— I suppose so.

Mr. Ward.— I should think he could have gone as agent for the dairymen to the same companies which you sold to and sold them milk at the same price that you did and thereby get a better price for the farmers who employed him.

Mr. Doyle.— Well, I suppose he could. Yes, sir; I suppose he could. He turned over to us three or four customers that were securing milk and cream from him and for that we gave him \$500 in our stock. All the stations that he was acting for were cooperative companies, except one, the Chemung Dairy Products Company, at Big Flats. The business he turned over to us was the Malone Dairy Company, Clover Farms and Locust Farms Company. There may have been one or two more. I don't know exactly what trade he kept. These were his regular shipping customers the year round. We had sold cream to the Malone Dairy Company before.

Mr. Ward.— Do you think that the cooperative dairymen knew that they had been turned over, that their business had been turned over to another middleman by Mr. Van San for stock in your company?

Mr. Doyle.— No; I don't know whether that good-will really belonged to the dairymen's companies that Mr. Van San operated for. I knew he was selling on commission at one place. I know Mr. Van San is agent for creameries, but how he got it, I don't know. I know he has done some work for Dillon and goes to his office occasionally.

Mr. Ward.— If he had been paid by the up-State dairy companies to build up a business and secure a good-will for their product and then he sells that good-will to a company in which he is interested and sells the product too, to a company in which he is interested, that would be immoral you would say, would it not? That is, say you hired me to go up in the upper part of the city and get you a customer and I get two or three customers and you pay me for my work and I go and sell those customers to the Sheffield Farms, wouldn't you say I was acting immorally towards you?

Mr. Doyle.— Well, there are two ways to look at that. In my judgment, it would not be immoral. We are still buying through Van San. We have our own creameries now, one at Millers Mills, N. Y. We bought it out of our own cash last April. We opened it in July; we paid about \$1,200 or \$1,500 for the site and then had it fixed up. We have another at Rice's, N. Y., on the R. W. & O. We bought that with the business we purchased last August from

Tutting & Hines, Incorporated. We paid \$17,000 for that business. We paid \$12,000 in cash and \$5,000 in notes. We got that \$12,000 out of the profits of our business, and from the \$8,000 worth of new stock we took. We sold the Harford Mills plant in September of this year and the North Spencer plant for \$4,000 to the R. F. Stevens Company. They paid cash. We lease other plants, one at St. Johnsville, one at Newport, one at Stone Road. The last three are all cooperative plants built by the farmers. We negotiated those leases for our company through Mr. Van San. At St. Johnsville and Newport, we paid a rent of \$100 a month; at Richfield Junction we don't pay any rent, but we had an understanding that we would fix up the creamery. Mr. Van San was the man who negotiated with the dairymen to lease those plants to our company. He was our representative at St. Johnsville in March, 1916, at Newport in September, and at Stone Road, Richfield Junction, in either June or July. The only trouble at the Richfield plant was the August patrons expected the full Dairymen's League price and we had a contract below that price until March 31, 1917. That was the contract Van San had negotiated. We had spent \$6,000 in machinery and construction at that plant; that was our rent, and that was the reason milk was sold to us at a price so we could make up for what we spent on the station, but we agreed to pay a price over and above the contract price verbally to outsiders. We never started to operate the Stone Road plant; we are fixing it up now. We get milk from New Berlin. We purchased that through Van San. That is a cooperative plant. Mr. Van San sold us that in 1915. At that time he was a stockholder in our company. He was then acting as agent either for the Bureau of Foods and Markets or the Dairymen's League; I don't know which. We also got milk from Baldwinsville through Van San. Those are the only places. Mr. Van San put in \$3,200 and drew out \$6,000 within a year.

Mr. Ward.—And during that time he turned this Dairymen's League milk or Bureau of Foods and Markets milk over to your company largely?

Mr. Doyle.—Whatever we needed of it.

Mr. Ward.—Well, he made \$2,500 then, apparently.

Mr. Doyle.— Yes, sir. We paid a dividend of 6 per cent and Van San got 6 per cent on his stock.

Mr. Ward.— I don't see why he was entitled to that \$2,500 for any reason except that he turned over this cooperative milk into your hands at a price.

Mr. Doyle — He got it because the others got it.

Mr. Ward.— That might look like a way to cover up a payment of \$2,500 in cash for turning over to you this cooperative milk at a price.

Mr. Doyle.— That was not the intention.

Mr. Ward.— The result would be the same as if it had been the intention.

Mr. Doyle.— Yes, the result is the same. We are now getting about 25 cans a day from Little Falls that comes to us. We have sold 10 or 15 cans to the Locust Farms. Van San sells some of it to us and some to Locust Farms. During 1915, we regularly sold a quantity of milk to small milk dealers. We sold to A. Piper, 202 E. 36th street; M. Mercy, 522 Second avenue; A. Bloch, 155 East 7th street, and others. Their requirements average about 40 or 50 cans a day. Mr. Van San arranged for the leases from which we got that milk. Of course, we made a profit on it.

Mr. Ward.— Then you think it is not possible from yours and Mr. Van San's experience, you would say it was not convenient for a cooperative dairyman to bring their milk and sell it direct to the men who needed it to distribute it in New York, that there had better be a middleman in the way of a broker like Van San and yourself between the user and the cooperative station?

Mr. Doyle.— You mean, in my judgment?

Mr. Ward.— Yes.

Mr. Doyle.— No, I would not think it necessary.

Mr. Ward.— Well, you thought it necessary in your case and so did Van San?

Mr. Doyle.— Well, for the convenience and benefit of the cooperative farmers. Today our assets are around \$65,000 to \$70,000. Our liabilities are about \$55,000 counting our capital stock.

We owe \$9,000 and current accounts for milk to the producers, but we never owe them for more than two weeks' milk. We still pay Van San a salary of \$50 a week. I draw \$50 a week. Van San got this salary of \$50 a week in addition to the \$2,500. McKay draws a salary of \$50 a week; Mr. Richmond draws \$10 a week; he was not active in the business, and the others were. I don't know why Van San left us. I have never figured our gross profits. I don't think the farmers who employed Van San were entitled to the \$2,500 and \$50 a week that he got from us. It is entirely different whether you are merchandizing products or representing one as an attorney. That is a different proposition. I wouldn't want an attorney to do just that way, but an attorney is not selling anything. I don't know that Van San is selling his skill to those cooperative companies, his skill as a salesman. I don't think the farmers ought to have gotten the \$2,500 and the \$50 a week that Van San received, even if they did pay him. We pay a better price to the farmers, but we pay still more to Van San.

Mr. Ward.— That is the grievance. You see the question is not “Do we get more, but did we get all that a good agent might have gotten us?”

Mr. Doyle.— Yes, I think Van San got fully as much. Why should he give the \$2,500 to the farmers? The farmers might have been happy; I will grant you that. I wouldn't call our stock watered stock.

Mr. Ward.— Well you actually had in \$8,000 and your stock is now \$20,300; that would leave \$12,300 water, and that is worth par now, you figure.

Mr. Doyle.— I showed you where we put in \$6,000 this year alone.

Mr. Ward.— And paid \$2,000 of that back to Van San though, together with some more, and I have taken that \$6,000 out which leaves \$8,000 in cash, so that makes \$12,300 which was originally watered. Is that the way most of the milk companies are capitalized and incorporated in the city?

Mr. Doyle.— I don't know anything about anybody else. I don't care to make our wholesale prices public.

COMPETITION

Mr. Ward.— Do you find that you have got to go up against other dealers trying to sell to the same customer?

Mr. Doyle.— Yes. The competition is very sharp. We don't agree among ourselves not to compete in selling. I do not believe in that, never did. As far as I am concerned or our company, the dealers down here have no agreement as to what price we will sell at.

Mr. Ward.— But we have heard the rumor that all of it was under an agreement combined.

Mr. Doyle.— In reference to prices?

Mr. Ward.— Yes. So that you do not compete with each other.

Mr. Doyle.— No, that is not the condition. That is not true.

Mr. Ward.— But Mr. Van San's Bureau announces there is no competition here in selling milk.

Mr. Doyle.— Mr. Van San's Bureau says that?

Mr. Ward.— Yes, that is what they tell us up-State and he is a stockholder and director of your company. Isn't that true, our story that our people get up-State, that you are combined here and don't cut prices or compete?

Mr. Doyle.— No.

Mr. Ward.— That is not true?

Mr. Doyle.— No.

Mr. Ward.— Who do you suppose started that story?

Mr. Doyle.— I don't know; there are a good many stories started.

Mr. Ward.— You have not found that true?

Mr. Doyle.— No.

Mr. Ward.— Mr. Van San has not convinced you that that is the situation?

Mr. Doyle.— That is not the situation. We sold the Sheffield Farms 25 cans of cream last month, and many other dealers.

THE OTHER MIDDLEMAN

Mr. N. A. VAN SAN, being duly sworn, testified:

"I live at No. 1253 Garden street, Hoboken. I am a milk agent for farmers' creameries and have been for three years.

Mr. Ward.—What farmers' creameries have you been milk agent for?

Mr. Van San.—Hamden, Andes, Little Falls, Kelly Corners.

Mr. Ward.—What do you do with the milk that they have?

Mr. Van San.—Sell it in New York City. I began to act as agent for farmers' creameries about 1913 and have been in that business ever since. I sell this milk and cream mostly to wholesalers,—Locust Farms, Malone Dairy, Johnson Dairy, Camisa Brothers, Holstein Dairy Company, and others. I have been selling some to the Modern Dairy Company and to the Locust Farms, to the Malone Dairy Company, and did all through 1915.

Mr. Ward.—Mr. Doyle says that they paid \$500 to you for the good-will of the business of the Malone Dairy Company and Locust Farms.

Mr. Van San.—No. When I didn't have enough surplus for the creamery, the Modern Dairy Company had their own creameries.

Mr. Ward.—Is that true what Mr. Doyle testified, they paid you in 1916, in the spring, \$500 for the good-will of your business with the Locust Farms and Malone Dairy Company?

Mr. Van San.—Yes, sir, for their surplus.

Mr. Ward.—Then you took \$2,000 stock in their company?

Mr. Van San.—No, I bought stock from another partner who went out, Mr. Doyle's brother. I took that over to help the concern out. I paid \$1,000.

Mr. Ward.—At the end the year Mr. Doyle said you had \$6,000 in stock.

Mr. Van San.—Well, with the cash capitalized new, it made the capital bigger. I paid \$2,000 in at one time and they gave me \$500 for good-will from those customers that I mentioned before.

I put in \$3,200 in cash and drew out \$6,000. I was in a year. I got \$50 a week during that year from them for expenses, after their farmers. I visited the creameries. They had creameries up the State and I looked after them, the same as I do the farmers' creameries.

Mr. Ward.— Mr. Doyle said it was salary.

Mr. Van San.— He can call it salary because I did not charge expenses up.

Mr. Ward.— Did you sell some milk to the Modern Dairy Company while you were working for them at \$50 a week?

Mr. Van San.— Yes, sir; I did; when I was short I sold milk to the Sheffield Farms and Malone Dairy Company; I didn't fix the price; I have so much milk if a man can sell it, to sell it. The Modern Dairy Company gave me the price they wanted for it. I was a director of the Hamden Creamery Company; I was living in Hamden.

Mr. Ward.— Were you connected with the Bureau of Foods and Markets?

Mr. Van San.— Yes.

Mr. Ward.— In what way?

Mr. Van San.— Oh, what way? I am special inspector.

Mr. Ward.— Special inspector of what?

Mr. Van San.— Well, for investigation; milk investigation.

Mr. Ward.— The farmers' dairy company pays you commission?

Mr. Van San.— Sure.

Mr. Ward.— To sell their milk?

Mr. Van San.— Yes, sir; sure.

Mr. Ward.— And you got paid in the Modern Dairy Company \$50 a week to sell their milk to them?

Mr. Van San.— Yes, sir.

Mr. Ward.— And you did sell the farmers' milk, some of it to the Modern Dairy?

Mr. Van San.— Yes, sir. I made the lease for the St. Johnsville farmers dairy with the Modern Dairy Company when I was interested in the Modern Dairy Company. I was the treasurer. I was not acting for the farmers then. The same is true at Newport.

Mr. Ward.— In Little Falls, you were acting for the farmers?

Mr. Van San.— Yes, sir.

Mr. Ward.— You got a commission for selling their milk?

Mr. Van San.— Yes, sir.

Mr. Ward.— You sold some of it to the Modern Dairy Company?

Mr. Van San.— Maybe some.

Mr. Ward.— Why weren't your dairymen that you were working for up-State entitled to the \$50 a week?

Mr. Van San.— I am not working for any dairymen. I have nothing to do with St. Johnsville or Newport at all. These sales were made to the Modern Dairy Company. The Andes Dairy Company's milk goes to the Modern Dairy; we sold it and the Modern Dairy Company paid the Andes Creamery. The Andes Creamery Company pays me 1 per cent; the Little Falls pays me 2 per cent.

Mr. Ward.— How long have you been connected as special inspector of milk, etc., with the Bureau of Foods and Markets?

Mr. Van San.— When it opened, I think; I have known Mr. Dillon eighteen years.

Mr. Ward.— Have you been connected with the Bureau ever since it was organized?

Mr. Van San.— Yes, sir.

Mr. Ward.— And with the market end of it?

Mr. Van San.— Yes, sir.

Mr. Ward.— And advising and helping the farmers and Mr. Dillon?

Mr. Van San.— Yes, sir.

Mr. Ward.— Did the Bureau of Foods and Markets sell any milk through anybody besides you?

Mr. Van San.— No, sir; they are not in the milk business selling agent.

Mr. Ward.— So all the milk that they ever claimed to have sold, you are the man who sold it?

Mr. Van San.— Yes, sir; I sold it. I went in as a stockholder of the Modern Dairy Company to protect myself. I was selling those fellows quite some stuff, and I wanted to know what was going on, if I get the pay for it. \$50 a week isn't so much. You travel, you know what that costs on the railroad. I say I did spend money traveling on their business. I am doing the same thing today. I still get the same salary of \$50 a week, although I am not a stockholder; I am still continuing on a salary. There is no other milk company here paying me a salary.

Mr. Ward.— I understand milk is very scarce now.

Mr. Van San.— Yes, sir.

Mr. Ward.— And very high?

Mr. Van San.— Yes, sir.

Mr. Ward.— And you got these contracts last fall for the Modern Dairy Company?

Mr. Van San.— Yes, sir.

Mr. Ward.— From cooperative companies?

Mr. Van San.— Yes, sir. I got those contracts last Spring for the year. I got the Barnegat Creamery after Malone. They pay me 2 per cent commission. The Malone Dairy Company pays nothing, no expenses and no salary. I don't own the Little Falls milk. I am an agent and understand I have to sell the whole output. Any milk Doyle gets from Little Falls his company bought from me. The \$50 a week he paid me had nothing to do with that.

Mr. Ward.— You made a profit on it more than the Little Falls people received.

Mr. Van San.— Who?

Mr. Ward.— You.

Mr. Van San.— No, sir.

Mr. Ward.— You were a stockholder in the Modern Dairy Company.

Mr. Van San.— That is all right; that has nothing to do with the Little Falls milk, if I am a stockholder in that company; I can be a stockholder in many companies. If I should invest some money, I do.

Mr. Ward.— Is it true that they gave you \$500 of their stock for a part of the good-will?

Mr. Van San.— I told you before that is true.

Mr. Ward.— Is it true that you put in \$3,200 for a year and drew out \$6,000?

Mr. Van San.— Yes, sir.

Mr. Ward.— That gave you \$2,800 profit besides the \$50 a week.

Mr. Van San.— Yes, sir.

Mr. Ward.— You were the only one connected with the Department of Foods and Markets?

Mr. Van San.— I am not connected with the Bureau of Foods and Markets.

Mr. Ward.— I thought you told me you were when you sat down here, a special milk inspector.

Mr. Van San.— Well, when there is any trouble in the country in the creamery they write and Mr. Dillon asks me to go up there.

Mr. Ward.— So you do go up representing the Bureau of Foods and Markets?

Mr. Van San.— Yes, sir.

Mr. Ward.— And you don't go up there representing the Modern Dairy Company?

Mr. Van San.— No, sir.

Mr. Ward.— Or any dairy company?

Mr. Van San.— No, sir.

Mr. Ward.— You bought that stock to make some money, didn't you?

Mr. Van San.— No, sir; I did it to help that company.

Mr. Ward.— Why didn't you keep it then?

Mr. Van San.— I don't want to keep it, because I sold out. Mr. Richmond wanted to buy it. I still take care of their business when in the country and they pay me \$50 a week. When the Bureau of Foods and Markets sends me up to help the dairymen, nobody pays my expenses; I pay my own expenses; the dairymen don't pay; I am no philanthropist; but I am most of the time in the country; I have to go in that section any way. If I am needed in St. Lawrence County, I go to St. Lawrence County. I am interested in a creamery there at Fort Covington near Malone. I buy the milk straight out and sell it here since the 1st of December. Now I am jobbing milk on my own account.

Mr. Ward.— Have you got any creamery in Chautauqua County?

Mr. Van San.— No, sir.

Mr. Ward.— If you had to go up there for the Bureau of Foods and Markets, who would pay your expenses?

Mr. Van San.— Nobody.

Mr. Ward.— You would still go free?

Mr. Van San.— Yes, sir.

Mr. Ward.— Somebody has to pay for that ultimately.

Mr. Van San.— You have got to do some favors in the world.

Mr. Ward.— Well, it has been fairly profitable, hasn't it, this working for nothing for the farmers?

Mr. Van San.— I am not working for nothing when I get 2 per cent commission; I don't call that working for nothing.

Mr. Ward.— Well, you go then with the idea of making a contract with them to take care of their milk?

Mr. Van San.— When they want me, yes, sir. That is the real object. That is the only time I pay my expenses. The Department has never paid a cent of expenses. I pay my own expenses

because it may help me to get new business. I am not a jobber of milk. I buy the Fort Covington milk and have them ship it in my name because those people were never in the New York market. I buy it at a certain price and sell it again to the Sheffield Farms.

Mr. Ward.— How much do you get for it?

Mr. Van San.— Well, that is different.

Mr. Ward.— In December how much did you pay?

Mr. Van San.— I buy on butter fat basis. Good milk costs us \$2.42, I think. I am selling it at an advance of 5 cents per hundred pounds to the Sheffield Farms. You can call it as commission, yes, sir. The farmers were not afraid to sell it to Sheffield Farms. I went up there and bought it.

Mr. Ward.— Then you were an extra middleman between the Sheffield Farms and the dairymen?

Mr. Van San.— Oh, to Sheffield; yes, sir. I am an extra middleman between Sheffield Farms and the dairymen and get five cents a hundred pounds. I am not really a commission man because I am responsible for all of the milk the farmers ship in. If the bills weren't paid, I have to pay it.

Mr. Ward.— I understand that the Bureau of Foods and Markets that you are working for at times, has for one of its principal objects the elimination of unnecessary middlemen?

Mr. Van San.— Yes, sir.

Mr. Ward.— It hasn't worked out in this case. But the Bureau of Foods and Markets has been instrumental in creating one or two additional middlemen.

Mr. Van San.— I don't think a farmer can afford to come here every week and collect and sell the surplus milk. I think it would cost him more than 2 per cent.

Mr. Ward.— Every man who sells milk to Sheffield Farms does not need to come here and ask for his money or to collect his money.

Mr. Van San.— There are several creameries. Everybody cannot sell to Sheffield and when Sheffield buys here he don't buy of everybody generally.

Mr. Ward.— That is what every middleman down on the street or every commission man says. They make the same argument as you. They say every creamery cannot come here and sell their product.

Mr. Van San.— You know they cannot do that.

Mr. Ward.— They say the Bureau of Foods and Markets sell millions of pounds of milk for the farmers. Did you sell all that milk?

Mr. Van San.— I sold all that milk and I get a salary from the Modern Dairy Company and commission from some of the creameries. I have a right to be interested in any milk business I want. That is between me and the Modern Dairy Company.

Mr. Ward.— And you made these profits as a stockholder of the Dairy Company?

Mr. Van San.— Yes, sir.

Mr. Ward.— While you were selling all the milk the Bureau of Foods and Markets talks about?

Mr. Van San.— Yes, sir.

OWNERSHIP AND CONTROL OF GATHERING STATIONS

It is earnestly contended by those who have studied the question from the standpoint of the dairymen, that dairymen are ensured of better prices for their product by the ownership and control of the milk gathering and pasteurizing plant. The experience of cooperative stations during the past year seems to demonstrate that claim. It may further be said that the auditor's report made to this Committee from the books and records of certain distributors, established the proposition that market milk can be handled, clarified, pasteurized and bottled at the country station at a lower cost than the same work can be done in the city plant. On the other hand, the milk distributor asserts that the business of the large distributing companies cannot be successfully handled through the operation of a large number of small country plants. They contend that the operation of two or three country plants, where a less cost for pasteurization, etc., is shown, does not afford a just basis of comparison as to what the costs would be if all the

business of the large companies was attempted to be handled in that way. The testimony of the larger distributors is to the effect that it would be impractical and impossible to carry on their business satisfactorily by buying their daily supply throughout the year from a great number of cooperative plants managed and conducted by the dairymen, because of the fluctuating and varying needs of the business and the uncertainty of the supply at different seasons from various country stations so controlled. In other words, their contention is that if all the milk now handled at the central city plants was attempted to be handled by them in their own plants at the shipping point, it would require great duplication of apparatus and labor at many points. At some seasons, this apparatus and labor would be idle; at others it would be overburdened; and that in considering the entire volume of business, it is far more economical to gather the milk at the central city plant in the required amounts and prepare it for market as a whole for a day's supply, instead of attempting to accumulate or prepare from many various sections. It is urged further that the requirements of the Health Board are intended to provide for the pasteurization of the milk as nearly as possible to the hour of delivery.

The evidence offered before the Committee as to the action and requirements of the Board of Health justify the conclusion that it is the purpose of the Health Department to require pasteurization within a reasonably short time before delivery, and that such pasteurization is the more effectual and produces a more sanitary product for the consumer. Obviously, this result can only be reached by pasteurizing the day's supply after it is assembled at the point of distribution in the city. If the pasteurizing is to be done at the country plant, it is obvious that it will be difficult to deliver the milk to the consumer much under twenty-four hours after pasteurization. It is doubtful if this result will satisfy the advocates of general pasteurization. On the other hand, the dairyman claims that he is much more advantageously situated with his own station than he is with the station owned and controlled by the milk company. A solution of the more important dispute suggests itself in that the ownership of the collecting or shipping station by the dairyman does not necessarily involve pasteurizing.

If the milk is to reach the market independent of the large distributor equipped with pasteurizing facilities, the pasteurizing apparatus is necessary in the dairymen's country stations, but if it is to go into the hands of distributors who have central pasteurizing plants, pasteurizing equipment is unnecessary or need not be used. In examining the method of operation of cooperative stations and the results achieved, it is easily observable that the cooperative companies owning their own stations have received some slight advantage in milk prices, such as appears to a small extent in the Lowville Cooperative Company, whose plan has been before set out in this report. The Committee has been unable to find evidence during the year 1915 of any considerably greater advantage secured than the investment in the dairyman's station demanded. It should be remembered in considering these prices that the milk dealer or lessee had in the great majority of cases, no capital investment and up to 1916 paid only nominal rent. The capital investment in the cooperative station must be taken seriously into account. In many cases, however, it was disclosed that the stock of cooperative companies through a small dumpage charge had earned substantial dividends and in some cases had doubled in value. The milk distributing company which owns its own stations and thus controls the source of supply, from its business standpoint is much more securely situated than one dependent upon stations owned and controlled by dairymen. This naturally results in the desire and disposition of the milk distributing companies to own and control the collecting stations. Their aim and purpose has been stated to be the control of milk at the earliest possible moment. They contend that this best allows them to provide for its sanitary condition and for a nearly uniform supply.

On the other hand, it would seem to be obvious that the dairymen should have an assembling station, owned and controlled by themselves, in which their product could be assembled, handled and made ready for the market. A careful consideration of the reasons advanced by the distributors as to the necessity of the ownership of the ordinary shipping station does not overcome the apparent advantage to the dairyman in the operation of his own assembling and shipping station. However, it

must be borne in mind that these suggestions apply largely to the country shipping station engaged in collecting and forwarding to the city market, day by day, the normal quantity, and in the seasons of surplus, possibly manufacturing butter and cheese. They do not apply to manufacturing plants requiring an investment of \$50,000 or \$100,000, and possibly much more. With the increased demand for market milk, these large manufacturing plants supply at certain seasons, the city market. At other times they are largely engaged in the manufacture of other products. They are of direct benefit to the dairymen and to the State as a whole. It is doubtful if cooperative agencies can find the capital, the skill and cohesion to carry on such industries for many years to come. If the dairyman is securing from the milk distributor a fair return for the market milk produced by him, this question will probably disappear.

One other proposition suggests itself in relation to this matter. In times when market milk is high and sought after, the co-operative station will be able to show a handsome profit and easily find a favorable market, but if for any reason, the purchasing power of the people is greatly reduced and the attendant large consumption of all kinds of food products, including milk, is reduced, it will be exceedingly difficult for the cooperative company to find a market. The distributing company is then well supplied with milk from its own stations. The jobber, who perhaps has been serviceable for a time to the co-operative company, will find it difficult to sell at a satisfactory price. The patron of the cooperative station is then at a disadvantage to the patron of the distributing company who is assured of such market as exists.

This review of the testimony is attempted not as being decisive of the problems involved, but as a presentation of the various arguments advanced. They should be considered seriously by dairymen in making their initial investment. That the last consideration referred to has operated during certain periods in the State, is abundantly established by the evidence in the record. Many a cooperative plant, established at considerable expense and with great labor by dairymen, easily falls into the hands of the waiting distributor, when market conditions places the co-operative plant at a disadvantage.

ACQUIRING CONTROL OF THE DAIRYMEN'S STATION

There can be no question that the average milk distributing company desires to eliminate from its field of operation both the cheese factory and the cooperative plant. The evidence before the Committee affords many examples of these methods. A period of depression comes with attendant small returns to the patron of the cooperative factory. He quickly becomes disgusted and offers his stock to the first taker. One or two active men in the company soon absorb a controlling interest. This is easily turned over to the nearest milk company at a profit. Ill luck in marketing of product, dissatisfaction with the control; all the numerous ills and annoyances that occur between men, operate to destroy and dissolve the cooperative endeavor. Successful cooperation requires steadfast qualities of the mind and heart, which must be carefully cultivated in order to survive, but it is difficult to write such qualifications into the articles of incorporation so that they may effectively control the action of all the members. It may well be said that the successful cooperative management of marketing societies requires broadened social views and social service from the men engaged in managing cooperative enterprise. To create this spirit of cooperation and service in the State is one of the most serviceable of governmental activities.

ANTAGONISM BETWEEN DAIRYMEN AND MILK DISTRIBUTORS

In order to secure personal popularity, certain persons strive to convince dairymen that an antagonism exists between them and the purchasers of their product.

This is not so. No necessary antagonism exists between the dairymen and the milk distributing company. On the contrary, their interests are mutual. Instead of being engaged in a destructive warfare, the one upon the other, they are each necessarily engaged in promoting the other's interest. The business of the milk distributor cannot flourish unless the producers, among whom his capital is invested, ultimately flourish. Also, it is perfectly apparent to any thinking man, that the dairyman cannot flourish except when the business of distributing his product is profitable and flourishing. It would seem unnecessary to make any comment upon this situation, yet from time to time, individuals seeking

selfish ends, endeavor to create in the public mind the idea that the milk distributor is necessarily the enemy of the dairyman, and the dairyman the necessary antagonist of the milk distributor. Nothing could be further from the facts. Nothing could be more vicious or detrimental to the welfare of both. That the dairyman will endeavor to secure from the distributor the best possible price for his product, and that the distributor will endeavor to buy at the lowest price, are universal business laws, but the bargain being over, there is absolutely no conflict of interests between them. On the contrary, the welfare of each is of the greatest importance to the other.

Therefore, it must be plain that any attempt to trade upon, or secure personal popularity or strength with the dairyman of the State by holding out to him the milk distributor as one filled with evil machinations towards the dairyman, is untruthful and detrimental to the interests of the State as a whole. Many millions of dollars of capital have been invested in structures and apparatus in the dairying centers of the State; many instrumentalities have been created for the promotion and continuance of the dairy industry; many improvements have been brought about in the handling of the product, and remarkable new fields of business enterprise have been developed, all of which has tended and does tend to the direct benefit of the dairy industry by affording new output for the dairyman's product. It may well be said that these activities of capital have largely created the present shortage in the milk supply and the increasing demand for the product, which enables them to secure the present current prices. This being so, any man or set of men, who attempt for personal reasons to put into the minds of the dairymen of this State, the idea that capital invested in these enterprises is necessarily antagonistic to their interests, is doing an evil work.

THE MILK TRUST

There is no milk trust controlling the purchase and sale of market milk in the city of Buffalo. There is none in Rochester; there is none in Syracuse; there is none in Utica; there is none in Albany; nor in any city between Albany and New York, nor in any town or village of the State. There is no milk trust controlling the purchase and sale of milk in the city of New York. Instead

there is sharp and bitter competition, so far as the records of this Committee discloses, in each and every one of the places. There are four stations in many places where one could collect the milk. There are four outfits of station managers and employees in many places where one could do the work. Every intelligent person who has ever discussed the question concedes that there are four horses and wagons, four or five or six groups of solicitors; four or five or six separate organizations and overhead charges duplicating work that one of each could well perform.

There is too much capital already invested in the business of handling and distributing market milk and trying to pay, and in many cases successfully paying, dividends upon this capital. Here, then, is the waste and the loss, because all these things are a burden upon the consumer and upon the producer. It is sometimes asserted that the field is not already sufficiently filled with this unnecessary service. It is sometimes contended that the cure for the trouble is for the State to endow some agency with a sum of money that it may put still another outfit in the field; that the State shall again duplicate this service. It would seem hardly necessary to refer to the unsoundness of such views. The lack of a just understanding of the economic problems involved are too plainly indicated in statements of this nature to require comment. It is obvious and well understood that no State agency can economically compete with individual enterprise. Instead of introducing more expensive competitors in the field to waste more money of the consumer, the State should endeavor by judicious legislation, to permit the elimination of all unnecessary investments both of labor and capital and effectively control the business operations of the remainder.

ATTEMPTS TO DISCREDIT THE QUALITY OF MILK FURNISHED CONSUMERS

There goes hand in hand with the attempt to establish a feeling of antagonism between the dairymen and the market distributor, what seems to be an attempt to discredit the quality of milk furnished by the distributor to the consumer in the city of New York. On February 3, 1917, a New York newspaper carried a headline reading as follows: "Ink Diluted Milk Sold Bronx Folks." A

few days previously a newspaper carried the headline, "Skim Milk Sold the New York Consumer." It is unnecessary to say to any person acquainted with the business of furnishing milk to the city of New York, that both these headlines were entirely unjustifiable exaggerations of trifling incidents, or untruthful in fact. When this Committee visited the city of New York, it was furnished with so-called evidence to be supplied by certain discharged employees of milk companies, which, after careful examination, was found to consist of the merest trifles or gross exaggerations of daily events that may occasionally happen and must necessarily occur in the management of any large concern. The ill feeling evidenced on the part of those making the attacks was such as to satisfy the Committee that the offered evidence was untrustworthy.

It was apparently the purpose of this evidence to prejudice the distribution of milk in the city of New York. It was evident that the persons offering it were actuated by a malicious feeling. It was, and is, perfectly evident that these trifles could be so handled by the public press in the way of exaggeration and sensation as to materially affect the consumption of milk.

This Committee did not choose to "bring out" such testimony. First, it was satisfied that it was largely unimportant. Second, it was satisfied that the purposes behind it were malicious. Third, it was satisfied that it was largely untruthful and unfounded on fact. Fourth, the investigations convinced the Committee that the consumer in the city of New York was actually receiving the most sanitary and wholesome milk in large volume that any city ever received, and that it was handled with the care and attention which such products did not receive in any other known city. This being so, it was perfectly evident that the Committee would go outside of its purpose to do a service to the State and merely make itself the tool of malicious individuals, if it lent itself to these unjustified attacks. It was evident to the Committee that the result of such activities would be detrimental to the dairymen of the State in cutting down consumption. That those engaged in the attempt to discredit the quality of milk furnished to the consumers in New York are, however, not content, is evident in the publications referred to. These attempts cannot help being directly injurious to every dairyman in the State. In any fair view of the

subject, they are untruthful and unreliable. By means of these activities, the inhabitants of cities who desire to use milk as a food are influenced not to do so. Being unfounded, they accomplish nothing except to gratify the malice of individuals, yet are directly injurious to both consumer and producer.

It is evident that the State should provide itself with means to protect the dairy industry from maneuvers of this sort. Otherwise great harm may result from such a propaganda. It is always more popular to make sensational attacks than to recite the plain facts of an industry. The food supply is too important to be used as an instrument to gratify malice or to secure popularity by unjustifiable attacks.

MILK BUYERS' BONDING ACT

In 1913, provision was made to the end that the operators of milk stations or collecting stations should furnish a bond through the Department of Agriculture of the State to secure dairymen who should deliver milk at the station. This act has failed in effectual enforcement. The enactment of this law was induced by the common knowledge that dairymen in many sections of the State from time to time, became the prey of men without financial responsibility, who could secure for a time, possession and control of a shipping station, or suffer tremendous losses because of the honest failure of men engaged in business. If a survey could be made extending back fifteen years, it would probably be difficult to find a county in the State where the dairymen have not lost many thousands of dollars from such operations. The failure to receive any pay for milk produced for as long a period as two to three months has been very frequent. Such a result is a disaster of considerable magnitude to the ordinary farming community. The loss to the owner of the farm is serious enough, but the situation of the tenant farmer dependent for his daily bread upon the milk check, is far more so when the milk company becomes insolvent or the fraudulent operator disappears with the proceeds of two or three months' milk. This situation is too well known to require extended comment.

It appears from the evidence before this Committee that during the year 1915 and well into 1916, the Beakes Dairy Company,

which at times owed the dairymen of the State amounts exceeding \$100,000, for some reason or other, failed to make payment to the dairymen for periods approximating ninety days. During this time the dairymen were without current funds to carry on their business. This condition caused serious unrest in the sections of the State where this large company was operated. This company as well as others disregarded the provisions of the statute requiring that a bond be furnished to secure the payment for the milk collected at the country stations. The company in August, 1916, was still operating in defiance of this law. The patrons who brought milk to the Beakes Dairy Company were unsecured against loss, if for any reason the company found itself unable to make payment for the milk delivered. The company asserts that its financial condition has become improved to such an extent that it now pays monthly for milk delivered, yet evidence received by this Committee at the station in Massena in September of this year showed just grounds of complaint because the delayed payments still existed. It was practically conceded before the Committee by officers of this company that it was not able to secure a bond such as the law required. If this is the truth, then there is no justification for permitting the company to continue in business.

No possible justification can be found for asking the dairymen of the State to assume a risk which no bonding company will undertake. By delaying payment for as much as sixty days, it is possible for a milk collecting company to continue in business for some time, paying the dairymen for March milk on May 1st from the proceeds of the April milk, but ultimately there must come an end to such operations. Overhead charges and other charges eat into the fund. Failure results, and the old story is repeated of the dairyman losing the proceeds of his farm. The average dairyman is practically unable to meet this situation individually. In the case of the Beakes Dairy Company no proceeding seems to have been taken to enforce the law until the month of June, 1916, when an action was commenced in the courts to enjoin this company from further operations without compliance with Section 55 of the Agricultural Law; that is, securing a license and giving the bond. The evidence shows that the Depart-

ment of Agriculture had been negotiating with the Beakes Dairy Company practically from the passage of the act until the month of June in the current year in an endeavor to have it comply with the law, but without success.

CONCLUSION

It seems apparent that any company permitted to operate among the dairy farms of the State should have sufficient responsibility to ensure payment to the dairymen for milk collected. There seems to be no just ground on which a milk gathering company should resist the operation of this law. Yet this company hired attorneys and proceeded to contest the right of the State to provide this remedy to dairymen. It is conceded that this company, as well as every individual of the State, is justified in asserting its full legal rights honestly and freely in the courts of the State, still it is strongly suggested to this Committee that this litigation on the part of the Beakes Dairy Company, is resorted to because of its financial inability to comply with the law. If this is so, the situation at once becomes dangerous for the dairymen interested and it becomes all the more important that the rights of the Beakes Dairy Company under this act should have been determined long prior to the year 1916. Then, if it had been determined that the law was unconstitutional, either the State or the dairymen could have sought other remedies to meet the situation. However the situation may end, the dairyman may claim to have been misled in some degree by the enactment of the bonding law from protecting himself. The mere enactment may have brought a sense of security to many patrons.

As a matter of fact, in his dealings with this company, all of the safeguards which were attempted to be created were rendered valueless. If this company, or any other company similarly situated, should have become insolvent without compliance, the dairymen would have failed to receive a large part of the money due them for their milk. So far as the Committee is informed, no decision has yet been reached in the litigation which was instituted in June, 1916, to determine the issue between the law of the State and the Beakes Dairy Company. The Committee

recommends this matter very earnestly to the attention of the Legislature. The Department of Agriculture is not satisfied with the law in its present form. Certain discretionary powers are lodged with the Commissioner of Agriculture as to requiring the bond or a satisfactory substitute. It is claimed that this discretionary power weakens the act. If this is so, a prompt remedy should be provided by the elimination of the discretionary power. In any event, such action should be taken as will provide a means of affording effectual security for the dairymen and a prompt and vigorous application of those means when provided.

SUPERVISION OF MARKET MILK

Practically every large municipality in the State endeavors through its department of health, with greater or less efficiency, to supervise the sanitary conditions surrounding the production and delivery of milk to its inhabitants. The various municipal regulations differ in detail and methods, but each and all have a common end, first, to secure milk from healthy cows; second, to have it produced in clean surroundings and in a clean condition; third, to have it handled by healthy persons so it may not become a source of infection or aid in the spread of disease; fourth, to have it free from adulteration, viz: by skimming. There are dairy sections in the State of New York from which milk is shipped to as many as four cities. Each of these cities endeavors to maintain a separate system of inspection of the dairy farms supplying its needs and employs a separate inspector or inspectors of farms, gathering stations and milk routes. The administration of this work is confined to the health authorities. That unguarded milk in the past has been a frequent cause of the spread of disease has been abundantly established and is conceded by all persons acquainted with the subject. Typhoid fever, septic sore throat, scarlet fever and other malignant diseases have been surely and certainly traced to an infected milk supply. Bovine tuberculosis in infants and young children has been established to occur in all too many cases. As the result of these studies and investigations disinterested and public-spirited men, especially in the city of New York, have led in the movement to ensure that the milk sold the inhabitants of that and other cities was free from these objectionable features.

The results of their labor are best shown by a study of the mortality tables in the city of New York.

PASTEURIZATION

Practically all competent authorities now agree that the milk supply can be prevented from being a carrier of disease by two methods.

First, by producing milk so safeguarded against contamination as to be practically sterile by its method of production. Obviously, this method requires careful supervision, high cost, and a constant and continuing expense which is beyond the means of most municipalities to carry out. It also means high and continued cost to the producer and consequently to the consumer. This is well shown by the exhibit made by the Markham & Puffer farm at Avon, contained in this report.

Second, by pasteurization, which simply means heating the milk for a short period at such a degree of temperature as will make no substantial change in its food value or food uses. It is a simple and comparatively inexpensive process and despite the objections raised thereto by various persons and interests, statistics and experience demonstrate that it is an effectual method of safeguarding the consumer from the milk carried diseases.

HEALTH REGULATIONS BENEFICIAL TO THE PRODUCER OF MARKET MILK

It is beyond question that the health regulations to control the milk supply of the City of New York and the other cities of the State have been and will be of benefit to the dairymen of the State. The increase of consumption of market milk by the inhabitants of our large cities has kept pace with the improvement in the quality supplied. This is well shown by the following table furnished the Committee by Professor George F. Warren of the New York State College of Agriculture:

RECEIPTS OF MILK, CREAM AND CONDENSED MILK, NEW YORK MARKET
1885-1914

	Milk 40 quart cans	Cream and con- densed milk 40 quart cans
1885.....	4,930,459	172,076
1886.....	5,268,455	176,483
1887.....	5,663,210	185,717
1888.....	5,817,809	210,678
1889.....	6,076,192	199,401
1890.....	6,284,732	137,007
1891.....	6,715,155	151,098
1892.....	7,221,877	187,636
1893.....	7,293,513	204,886
1894.....	7,479,273	210,269
1895.....	7,730,411	296,629
1896.....	7,996,924	223,778
1897.....	8,330,504	238,876
1898.....	8,829,805	274,003
1899.....	9,076,432	412,704
1900.....	9,388,947	422,754
1901.....	9,757,835	460,334
1902.....	10,197,387	493,707
1903.....	10,875,516	549,871
1904.....	11,640,225	598,218
1905.....	12,349,752	709,976
1906.....	13,762,629	747,920
1907.....	14,327,154	733,925
1908.....	14,511,787	685,406
1909.....	15,026,145	736,569
1910.....	15,820,330	815,598
1911.....	16,757,197	903,799
1912.....	17,323,230	900,131
1913.....	17,947,797	943,947
1914.....	18,157,724	964,159

Is it not reasonable to suppose that in that community where the inhabitants have reason to believe that the milk supply is carefully guarded and its wholesomeness ensured, a much greater quantity will be used than in the community where the inhabitants have reason to mistrust the effectiveness of the authorities in safeguarding the milk supply? It would necessarily appear that the consumption of milk for food will be much greater in the community that feels sure that the milk furnished is not a carrier of disease than in those communities in which no such assurance is given. Therefore, we conclude it is most important to the producer that the great consuming centers be satisfied that the milk furnished them is produced under careful supervision and control, and the producers should co-operate with the authorities in establishing that conviction in the mind of the consumer. There is a further consideration of these subjects which is of great importance

to the dairymen of the State of New York. If it be assumed that municipal health regulations require preparation, expense and constant improvement of methods on the dairy farm, the dairy farms that meet those requirements so long as they are strictly adhered to by the health department of the cities or other authority, will have a practical monopoly of the milk supply to the particular cities concerned, and when the farms are once equipped to meet the requirements of the health department for the production of market milk, the dairymen are concerned that those requirements be strictly adhered to by the city. Ultimately, the expense of such improved conditions must be borne by the consumer, but if the requirements of the department are to be waived for a given period, such as was demanded by some during the late so-called milk strike in this State, those farms are at once thrown into competition with all the milk available, which, in an emergency, might include milk from Wisconsin or Minnesota. This latter consideration does not seem to have occurred to those who quarrelled with the position of the Department of Health of the city of New York during the "late unpleasantness" because it refused to waive the health regulations of that city during that period. Had it not been for the stringent health regulations of that city requiring the introduction of milk into the city to be from inspected and improved farms, undoubtedly the requirements of the city could have been provided for by milk from distant and uninspected localities where the dairymen's league price was not insisted upon.

THE MILK SUPPLY OF THE CITY OF NEW YORK

One of the most important functions of the Health Department of the city of New York is the supervision of the milk supply. It was formally attempted through this Department to actually supervise the methods of production on every dairy farm from which milk was received in the city. The adoption of uniform pasteurization, however, obviated that expense in a large degree. The methods of production on the individual farms are at this date largely left to the milk companies under the supervision of a health department official. A check on the methods is provided by the sediment test and bacteria count. Pasteurization affords a reasonable safeguard from disease carrying milk. The equipment for safeguarding the milk supply in the city of New York is as com-

plete as can well be provided, and after as careful an examination of the records of that department and an inquiry into its methods as the time at the disposal of the Committee permitted, it is possible to say that the administration appears free from corruption, graft or sinister control; that it is in charge of competent and experienced men who perform their duty in a manner beneficial alike to the consumer and producer. The larger milk companies supplying milk to the inhabitants of the city are equipped with complete laboratories for the test and analysis of all milk furnished by them. The smaller companies have access to a laboratory maintained by their joint contribution and for a similar purpose. Independent of these, and constantly engaged in sampling, analyzing and testing the milk supply is the laboratory maintained by the city for that purpose, which ensures as sure and permanent a record as can well be made of the quality and condition of the milk supplied to its inhabitants. We believe that no other city has taken equal measure to safeguard its inhabitants. We believe that no other city is supplied with such pure and wholesome milk and at such reasonable price when other factors of cost are taken into consideration. We believe these propositions to be well established, first, by the detailed records of the department; second, by decreasing mortality from milk carried diseases as indisputably shown and established by the mortality records; third, by the greatly increased consumption of milk in the city. The records of the department furnished from the constant daily analysis of milk show the butter fat and solids, not fat content, of the average milk supply of the city for many years. A convincing illustration of those statistics is shown by the following charts, which are established by the record of the Department and the oaths of its officials.

UNLAWFUL SKIMMING OF MARKET MILK

The companies engaged in the distribution of milk in the city and who have trade names and good-will of great value are constantly engaged in an effort to ensure a high butter fat content in the milk handled by them. Undoubtedly, from time to time, the proprietors of certain milk stations engaged in shipping milk to New York city to be sold principally at wholesale or from stores, endeavor to secure some additional profit by removing a portion of the cream from the milk during the season when a part of the butter

fat can be removed and still leave a percentage sufficiently high to meet the legal requirements. An examination of the records of three shipping stations whose superintendents were called before the Committee apparently showed that cream was being illegitimately extracted from milk shipped. The original records of these three stations are in the possession of the Committee. These records were produced before the Committee by the station superintendent and the superintendent examined in connection therewith.

EXHIBIT 123

DAILY SHIPPING REPORT OF MODEL DAIRY COMPANY, 246 EIGHTH AVENUE,
NEW YORK CITY, FROM GREENWAY, N. Y., JANUARY 1, 1916

January 1:	Pounds
Milk received this day	5,357
Milk from previous day	63

Total of milk received and from previous day	5,420
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Shipments this day, 50 cans	4,250
Milk left over after shipping	1,105
Milk used for manufacturing	none
Shipped to Shapiro.	

January 2:	
Milk received this day	5,409
Milk from previous day	1,105

Total	6,514
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Milk shipped, 70 cans, 5,950 pounds.

Heavy cream shipped, 1 can.

Milk left after shipping, 445.

Milk used for manufacturing, 1 can, 85 pounds.

Total amount on hand and shipped, 6,480 pounds.

	Cans
Shipped to Model Dairy	20
Shipped to Shapiro	50

Total	70
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January 3:	Pounds
Milk received	5,266
Milk from previous day	445

Total	5,711
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Milk shipped, 25 cans, 2,125 pounds.

Shipped to Shapiro, 25 cans.

January 4:	Pounds
Milk received this day	5,237
Milk from previous day	3,570

Total	8,807
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Shipped 33 cans, 2,805 pounds.

On hand, 70 cans, 5,950 pounds.

Shipped to Shapiro, 33 cans.

EXHIBIT 123 — (Continued)

January 5:	Pounds
Milk received	5,242
Milk from previous day	5,950
Total	<u>11,192</u>

Shipments, 80 cans milk, 6,800 pounds.
 On hand after shipping, 4,250 pounds.
 Milk used for manufacturing, 170 pounds.
 Shipped to Model Dairy, 25 cans milk, 2 cans heavy cream.
 Shipped to Shapiro, 55 cans of milk.
 Total, 80 cans of milk; 2 cans of cream.

January 6:	Pounds
Milk received	5,238
Milk from previous day	4,250
Total	<u>9,488</u>

Shipped this day, 80 cans, 6,800 pounds.
 On hand after shipment, 31 cans, 2,635 pounds.
 Shipped to Model Dairy, 25 cans; to Shapiro, 55 cans.

January 7:	Pounds
Milk received	5,216
Milk from previous day	2,635
Total	<u>7,851</u>

Shipped, 80 cans, 6,800 pounds.
 On hand after shipping, 12 cans, 1,020 pounds.
 Shipped to Model Dairy, 25 cans.
 Shipped to Shapiro, 55 cans.
 Total, 80 cans.

January 8:	Pounds
Milk received this day	5,148
Milk from previous day	1,020
Total	<u>6,168</u>

Shipments, 50 cans, 4,250 pounds.
 On hand, 22 cans, 1,870 pounds.
 Shipped to Shapiro, 50 cans..

January 9:	Pounds
Milk received this day	5,226
Milk from previous day	1,870
Total	<u>7,096</u>

Shipments this day, milk, 61 cans, 5,015 pounds.
 Shipments this day, heavy cream, 2 cans.
 On hand, 22 cans, 1,870 pounds.
 Milk used for manufacturing, 170 pounds.
 Shipped to Model Dairy, 9 cans milk; 2 cans cream.
 Shipped to Shapiro, 50 cans milk.
 Total, 59 cans milk; 2 cans cream.

EXHIBIT 123 — (Continued)

January 10:	Pounds
Received this day, milk	5,129
Milk from previous day	1,870
Total	<u>6,999</u>

Shipments this day, 50 cans, 4,260 pounds.

On hand, 32 cans, 2,720 pounds.

Shipped to Shapiro, 50 cans.

January 11:	Pounds
Milk received this day	5,193
From previous day	2,720
Total	<u>7,913</u>

Shipments, milk, 40 cans, 3,400 pounds.

On hand, 53 cans, 4,505 pounds.

Shipped to Shapiro, 40 cans..

January 12:	Pounds
Milk received this day	5,237
Milk from previous day	4,505
Total	<u>9,742</u>

Shipped this day, milk, 81 cans, 6,885 pounds; heavy cream, 2 cans.

Milk on hand, 2,635 pounds.

Shipped to Model Dairy, milk, 31 cans; heavy cream, 2 cans.

Shipped to Shapiro, 50 cans.

January 13:	Pounds
Milk received this day	5,295
From previous day	2,635
Total	<u>7,930</u>

Shipments, 76 cans, 6,460 pounds.

On hand, 1,400 pounds.

Shipped to Model Dairy Company, milk, 26 cans.

Shipped to Shapiro, 50 cans.

Total, 76 cans.

January 14:	Pounds
Milk received this day	5,264
Milk from previous day	1,400
Total	<u>6,664</u>

Shipments, 65 cans, 5,525 pounds.

On hand after shipment, 1,084 pounds.

Shipped to Model Dairy, 65 cans.

January 15:	Pounds
Milk received this day	5,187
From previous	1,084
Total	<u>6,271</u>

Shipments this day, 65 cans milk, 5,525 pounds.

On hand after shipment, 8 cans, 680 pounds.

Shipped to Model Dairy, 65 cans.

EXHIBIT 123 — (Continued)

January 16:	Pounds
Milk received this day	5,217
Milk from previous day	680
Total	<u>5,897</u>

Shipments this day, 67 cans milk, 5,695 pounds, on hand, 212 pounds.
 Shipped to Model Dairy, 17 cans milk.
 Shipped to Shapiro, 50 cans milk.
 Total, 67 cans milk.

January 17:	Pounds
Milk received this day	5,746
Milk from previous day	212
Total	<u>5,958</u>

Shipments this day, 60 cans, 5,100 pounds.
 On hand after shipping, 2 cans, 170 pounds.
 Shipped to Model Dairy, 10 cans milk; Shapiro, 50 cans.

January 18:	Pounds
Milk received this day	5,137
Milk from previous day	170
Total	<u>5,307</u>

Shipped this day, 60 cans, 5,100 pounds.
 Milk after shipping, 127 pounds.
 Shipped to Model Dairy, 10 cans milk; Shapiro, 50 cans.

January 19:	Pounds
Milk received this day	5,029
From previous day	127
Total	<u>5,156</u>

Shipments, 59 cans, 5,015 pounds.
 On hand after shipments, 1 can, 85 pounds.
 Shipped to Model Dairy, 9 cans; Shapiro, 50 cans.

January 20:
 On hand after shipment, 1 can, 85 pounds.

January 21:
 On hand after shipment, 63 pounds.

January 27:	Pounds
Milk received this day	5,506
From previous day	340
Total	<u>5,846</u>

Shipments, 67 cans, 5,695 pounds.
 On hand after shipment, 2 cans, 170 pounds.
 Shipped to Model Dairy, 17 cans; Shapiro, 50 cans; total, 67 cans.

EXHIBIT 123 — (Continued)

January 28:	Pounds
Milk received this day	5,683
From previous day	170
Total	<u>5,853</u>
Shipments this day, 67 cans, 5,695 pounds.	
On hand after shipment, 85 pounds.	
Shipped to Model Dairy, 17 cans.	
Shipped to Shapiro, 50 cans.	
January 29:	Pounds
Received this day	5,528
From previous day	85
Total	<u>5,613</u>
Shipments this day, 45 cans, 3,825 pounds.	
On hand after shipment, 21 cans, 1,785 pounds.	
Shipped to Shapiro, 45 cans.	
January 30:	Pounds
Milk received this day	5,569
Milk from previous day	1,785
Total	<u>7,354</u>
Shipped this day, 63 cans of milk, 5,355 pounds, 2 cans heavy cream.	
On hand after shipment, 21 cans milk, 1,785 pounds.	
Milk used for manufacturing, 170 pounds.	
Shipped to Model Dairy, 13 cans milk; 2 cans heavy cream.	
Shipped to Shapiro, 50 cans milk.	
Total, 63 cans milk; 2 cans heavy cream.	
January 31:	Pounds
Milk received this day	5,482
Milk from previous day	1,785
Total	<u>7,267</u>
Shipments, 68 cans, 5,780 pounds.	
On hand after shipment, 1,445 pounds.	
Shipped to Model Dairy, 18 cans; Shapiro, 50 cans.	

JOHN L. CARVER, called before the Committee, testified:

I live at Greenway on the New York Central Railroad between Rome and Verona, N. Y. I have charge of the milk station there of the Model Dairy Company of 246 Eighth Avenue, New York city. We receive the milk, cool it and ship it, and we have a pasteurization plant and a separator; also cheese and butter equipment. After our milk is pasteurized it will keep, as long as you keep it cool, almost indefinitely. We pasteurize it before we separate the cream. I have here the statements from the officer from January 1st to 31st. This gives the day of the month, the

pounds of milk, the cans shipped, and the pounds shipped, and the amount received each day.

Mr. Ward.—On January 2nd, you received 5,409 pounds of milk and made one can of cream. How did you make that can of cream?

Mr. Carver.—With the separator.

Mr. Ward.—You shipped to New York 5,950 pounds in 70 cans. Did you ship the cans of skim milk; that is, the separated milk?

Mr. Carver.—No, sir.

Mr. Ward.—What did you do with the separated milk?

Mr. Carver.—Most of the separated milk we dump into the drain.

Mr. Ward.—Don't the farmers take it?

Mr. Carver.—No, sir; not this year. We have dumped our skim milk, all of it; yes, sir.

Mr. Ward.—Who is Shapiro?

Mr. Carver.—He is a milk dealer in New York; I cannot tell you where; the milk goes to 30th street.

Mr. Ward.—January 1st, you received 5,357 lbs.

Mr. Carver.—Yes, sir.

Mr. Ward.—And you had 63 lbs. over?

Mr. Carver.—Yes, sir.

Mr. Ward.—That made you 5,446 pounds.

Mr. Carver.—Yes, sir.

Mr. Ward.—And that day you shipped 50 cans to Shapiro, 4,250 pounds, and you had on hand 13 cans, 1,105 pounds. That gave you a total amount on hand and shipped of 5,355 pounds. You ought to have had 5,420 pounds to balance, had you not?

Mr. Carver.—Yes, sir. I was short 65 pounds. It is wasted milk in handling.

Mr. Ward.—On January 2nd, you received 5,409 pounds and had 1,105 pounds over. That gave you 6,514 pounds. You shipped 5,950 pounds in the 70 cans and had 5 cans of milk left over, or 445 pounds, as you put it down.

Mr. Carver.—Yes, sir.

Mr. Ward.—Then you say, milk used for manufacture, 85 pounds.

Mr. Carver.—Yes.

Mr. Ward.—Did you separate one can?

Mr. Carver.—We separated just one can, you understand; one can of cream.

Mr. Ward.—Well, that would make more than 85 pounds.

Mr. Carver.—Made more than 85 pounds of milk, but that is all we put in to ship.

Mr. Ward.—You only had 5 cans left. Four hundred and forty-five pounds was all you had?

Mr. Carver.—Yes, sir.

Mr. Ward.—So that out of the 445 pounds of milk you made one can of cream?

Mr. Carver.—Made one can of cream.

Mr. Ward.—That is, you reduced the five cans to one?

Mr. Carver.—Yes, sir.

Mr. Ward.—That would be what kind of cream, what per cent?

Mr. Carver.—Well, that would be about 8 per cent cream. I was short 34 pounds. That shortage might have come up just lumping the amount, or in various ways.

Mr. Ward.—So that January 2nd you were all cleaned up; you didn't have anything to carry over?

Mr. Carver.—No, sir.

Mr. Ward.—So that on January 2nd, your station was cleaned up and you had nothing left over there but cans of skim milk.

Mr. Carver.—Yes, sir.

Mr. Ward.—Now, on the 3rd, you received 5,266 pounds and you carried milk from previous day, 445 pounds. That was really skim milk. Then you say, total amount of milk received and from previous day, 5,711 pounds.

Mr. Carver.—Yes, sir.

Mr. Ward.—You add the 445 in.

Mr. Carver.—Yes, sir.

Mr. Ward.—The can of skim milk from the 2nd had gone right into the whole milk from the 3rd; isn't that true?

Mr. Carver.—No, sir; I don't get that.

Mr. Ward.—Your skim milk, that had made three cans of cream between the 1st and 5th, must have either been in the 1,020 pounds that you carried over on the 7th, or the 6,800 pounds that you shipped, or in previous shipments; they have got to be in one place or another, according to these sheets, haven't they?

Mr. Carver.—That was whole milk. There is no skim milk; it must be somewhere. That was 20 per cent cream I shipped the Model Dairy Company.

Mr. Ward.—On January 9th, you received 5,226 pounds and you had on hand 1,870 pounds, which gave you 7,096 pounds. Is that correct?

Mr. Carver.—Yes, sir.

Mr. Ward.—You shipped the Model Dairy Company 9 cans of milk and 2 cans of cream?

Mr. Carver.—Yes, sir.

Mr. Ward.—That was 20 per cent cream?

Mr. Carver.—Yes, sir; 20 per cent cream.

Mr. Ward.—You shipped out 59 cans, or 5,015 pounds. You had 22 cans left, which equals 1,870 pounds, and you had 170 pounds of cream. That gave you 7,059 pounds. That comes within 41 pounds of being the 7,096 pounds that you had on hand. Isn't that right?

Mr. Carver.—That is the way it looks there.

Mr. Ward.—On March 3rd, you had after shipment, 170 pounds on hand. On March 4th you received 5,825 pounds; adding the 170 gave you 5,995 pounds. You shipped out 2,125 pounds and it left you 45 cans on hand, 3,825 pounds.

Mr. Carver.—That is correct.

Mr. Ward.—On March 5th, you received 6,012 pounds. This gave you 9,387 pounds, and on that date you shipped to the Model Dairy Company 25 cans of milk and 2 cans of cream, and to Shapiro 40 cans.

Mr. Carver.—Yes, sir.

Mr. Ward.—You shipped then 5,800 pounds; you had left 3,825 pounds, and you used for manufacturing, you say, 170 pounds. That really meant two cans of cream, didn't it?

Mr. Carver.—Yes, sir.

Mr. Ward.—To get the two cans of cream, you had used more than 170 pounds?

Mr. Carver.—But we used it to balance the weight. That 62 pounds wasted; it balanced the account.

Mr. Ward.—The milk from which you got the two cans of cream was necessarily embraced in this 9,775 pounds, wasn't it?

Mr. Carver.—It looks so according to that balance. It looks that way.

Both from the records of the shipping station and the lack of satisfactory explanation of the records by the station superintendent, it is not difficult to reach the conclusion that the Model Dairy Company was illegitimately taking a part of the butter fat from the winter milk at the station above described.

Proceeding to Oneida, Madison county, the Committee examined and audited the station records of a station operated under the name of the National Dairy Company of Brooklyn, at Wampsville, Madison County, N. Y.

C. E. DEXTER, called before the Committee and sworn, testified:

"I live in Wampsville and run the shipping station of the National Dairy Company of Brooklyn. Its address is Nos. 358-360 Oakland street, Brooklyn. The general manager of the company whom I meet and talk over the business matters with is Chris Oher. He lived in Brooklyn. James Dexter and Lee Hyer work with me. I have been in that station twelve years. It was formerly run by Chris Oher personally, but they have a corporation now. We made some cheese in June and here is the shipping records. All the cheese we make is branded, New York State Whole Milk Cheese, or Full Milk Cheese.

Mr. Ward.—Have you got your records showing your receipts and shipments of milk for 1916?

Mr. Dexter.—No, sir; I have not.

Mr. Ward.—Doesn't the Agricultural Law require that you keep a record each day of milk received, milk on hand, from yesterday, milk manufactured, and milk shipped?

Mr. Dexter.—Yes, sir; they do.

Mr. Ward.—Don't you keep that?

Mr. Dexter.—No, sir; I don't. I used to keep it right along, but I got off from keeping it.

Mr. Ward.—You know that this statement should balance each day?

Mr. Dexter.—Yes, sir.

Mr. Ward.—Do you know the law requires that?

Mr. Dexter.—I do. I kept those accounts up four or five years and there was only once that we were called upon to see that report. That was about six years ago. Nobody has been there since. I have never had a sealer of weights and measures there. I have got sheets for June, July and August. I carry some milk over from one day to another. I have all the August record of what we took in and what was carried over. We were making two cans of cream a week.

Mr. Ward.— What did you do with the skim milk?

Mr. Dexter.— We used some of it for Dutch cheese and some of it was sold. The Dutch cheese was used and sold to different ones; I didn't sell it myself.

Mr. Ward.— Who did?

Mr. Dexter.— The Brooklyn man who was up here and put in the pasteurizing plant; he sold it right around home; I don't know who bought it; I didn't sell any of it. The Brooklyn man was here five weeks. He put up a pasteurizing plant and he run the business while there; I don't know how much Dutch cheese he made; you will have to ask the man who did it. He didn't make up a hundred pounds. He would make up what he could from a can now and then.

Mr. Ward.— From a can of what?

Mr. Dexter.— Of skim milk.

Mr. Ward.— What did you do with the other cans of skim milk?

Mr. Dexter.— We used some for butter-milk.

Mr. Ward.— What did you do with the butter-milk?

Mr. Dexter.— Drank it and sold it.

Mr. Ward.— Who did you sell that to?

Mr. Dexter.— Different ones.

Mr. Ward.— Can't you name someone?

Mr. Dexter.— Yes, sir; there is a conductor on the milk train that got some there. Some days he would get three quarts, some days two, some days one; different ones around the village bought it.

Mr. Ward.— What per cent of cream did you make?

Mr. Dexter.— It was hand skimmed cream; we had no separator; we skimmed it by letting it stand from one day to the next either iced or in water in the cooler. The milk would be in the 40 quart cans after we had prepared them to ship to New York, but were carried over in the cooler. This cream that we got we took off

those cans. It was pretty good skim milk that we had left. That is the way I was authorized to make cream in this station.

Mr. Ward.— Who authorized you?

Mr. Dexter.— Why Chris Oher or the National Dairy Company. Nobody ever told me to dip some cream out of those cans that were in the cooler. We got more than two cans a week in June as appears on the statement, that was hand skimmed. Most of it came out of the cans in the cooler. I used a pointed dipper to take it off the cans with. I used a dipper. I don't know whether Hyer saw me do it or not. I know I had the cans of cream. I was ordered to ship two cans a week. I shipped it to the National Dairy Company.

Mr. Ward.— You shipped a can of cream on August 7th. Is that right?

Mr. Dexter.— Yes, sir.

Mr. Ward.— When did you dip that cream?

Mr. Dexter.— That was skimmed off the cans that was carried over in the cooler. It was shipped the day after it was finished. It was finished on the 7th. I had been dipping to get that can two or three days. I don't remember whether I had been dipping since the 3rd. It took me four days to get a can of cream. I got about ten quarts a day. I cannot tell you how many cans I dipped milk off on the 6th. I did not make any pot cheese or butter-milk on the 6th. I skimmed four or five cans of milk to get this can of cream that I shipped August 1st. It would be light cream; of course, it would not be heavy cream. For the can I shipped on the 3rd, I skimmed about five. And for the can I shipped on the 7th, I skimmed about five.

Mr. Ward.— So you had fifteen cans of skim milk the first week in August, did you?

Mr. Dexter.— Well, about that; yes, sir. I shipped a can of cream on July 30th, another on July 28th, another on July 24th, another on July the 22d, another on July the 21st, another on July the 19th, another on July the 17th, another on July the 15th, another on July 14th, one on July the 11th, one on July the 5th,

and one on July the 3d, so I should have had 65 cans of skim milk at five cans of milk to one can of cream, but I didn't have any 65 cans of skim milk.

Mr. Ward.— Why?

Mr. Dexter.— Because, I did not.

Mr. Ward.— There are thirteen cans of cream you shipped.

Mr. Dexter.— Yes, sir.

Mr. Ward.— And yet you say you skimmed about five cans of milk to make a can of cream?

Mr. Dexter.— I do.

Mr. Ward.— Then you had 65 cans, didn't you, of skimmed milk?

Mr. Dexter.— Yes, sir.

Mr. Ward.— Then you were not right when you told me you did not have 65 because you did have them, didn't you?

Mr. Dexter.— Sure. Those 65 cans are not up in the cooler. They have been sold and churned.

Mr. Ward.— You didn't churn skimmed milk?

Mr. Dexter.— Oh, that was not skimmed close.

Mr. Ward.— Did you make butter?

Mr. Dexter.— I made some buttermilk to drink, yes, sir.

Mr. Ward.— You didn't drink that 65 cans of skimmed milk; you never drank all of that.

Mr. Dexter.— I did not.

Mr. Ward.— What did you do with it?

Mr. Dexter.— Well, it was used up.

Mr. Ward.— You know you cannot honestly account for those 65 cans.

Mr. Dexter.— I will tell you where some of that cream came from. It did not come from the skim; there was a batch pasteurizer in the plant and on the last run of this milk running from this

batch pasteurizer it is clear cream and you cannot help having it on there in any way and that was saved out of the last end for cream.

Mr. Ward.— That must be a useful separator and pasteurizer combined.

Mr. Dexter.— I am telling you as it is. They put in a batch pasteurizer to run and the fellow was up there and he run it; we didn't have power to run the pasteurizer and on the last end there is a coil in there, of course, but the milk gets below the coil and the milk gets no chance for agitation and while it is running off there is a percentage of cream rising on the milk; I don't know the name of the pasteurizer, and this milk was always run through a coil of pipes, went up and into a coil. Now it has to go up and into the pasteurizer and then has to go along through another pipe and into the cooler. I do dip a percentage in the cooler, but there is some I cannot dip nor I cannot avoid that. That takes the cream out of the milk just the same. The milk that came out of the pasteurizer was shipped to New York with the other. All of this cream that I shipped did not come from this pasteurizer. It was not so in fact that I dipped all of this cream out of the neck of the cans. I have dipped a full can in the way I have told of 40 quarts of cream with this pointed dipper; I don't know whether I did it in July or not. The pasteurizer does not make enough; I have to dip. I understand it is perfectly impossible for me to account for the disposition of 65 cans of skimmed milk from that station in July and I cannot do it under my theory of dipping or under the buttermilk that I drank, so I have this explanation of the pasteurizer.

Mr. Ward.— Which is the truth, the dipper or the pasteurizer making this cream?

Mr. Dexter.— Both. I cannot say how much of those fifteen cans of cream were made by the dipping process. I do not know how much I have skimmed. I do not know how much would run out over the cooler from the pasteurizer; some days more than others,— yesterday, perhaps ten or twelve quarts. As soon as I get a can full by a little dipping and a little pasteurizing, I would ship it to New York. These are my orders. I was not taught to pasteurize. The fellow tried to pasteurize the milk, but we didn't have

the power so it looks as if we only used it for separating. By the sheets it shows that on July 20th we received 5,428 pounds of milk and we shipped 62 85 lb. cans and that only left on hand 158 pounds of milk, which we carried over. On July 21st, we received 5,592 pounds and we shipped 5,525 pounds to New York in 65 cans. So that if you add the 5,592 and the 158 that we carried over, we had 5,750 and we shipped 5,525; that gave us 225 pounds of milk wasted and everything that was not shipped. That is the truth, these figures just as you have got them there. That left us 225 pounds of milk for two days' work, the 20th and 21st. Then we had 85 pounds of cream out of that.

Mr. Ward.—You never got that 85 pounds out of the 225 pounds of milk, did you?

Mr. Dexter.—Some of it came out of the pasteurizer.

Mr. Ward.—As a matter of fact, if you had that cream at 85 pounds, subtract that from the 225, you have only 140 pounds left that you did not ship to New York.

Mr. Dexter.—Yes, sir; we got some of this from the pasteurizer, but we didn't get any skimmed milk from the pasteurizer and we didn't have any cans of skimmed milk left on the 20th and 21st from those figures. All those figures are correct. I will sign my name on the sheet. Some of this cream we shipped came off the milk that went into cheese.

Assemblyman Law.—About how much cream comes out of a 40 quart can of milk?

Mr. Dexter.—About 8 quarts, 7 or 8 quarts with the skimmer.

Assemblyman Law.—I mean in going through the pasteurizer.

Mr. Dexter.—I couldn't say how much; there is a very little; it is the last end in running out where the coil does not touch it.

Senator Wicks.—Have you got to tip the runway or something?

Mr. Dexter.—Well, it is just as it was set up.

Assemblyman Grant.—Do you think you got anywhere near all the cream where you dipped it off the can like that?

Mr. Dexter.—No, sir; I don't.

Assemblyman Grant.— Then there is a big waste when you skim that way?

Mr. Dexter.— There is a waste, yes, sir. I will not swear that the cans on which I used the dipper were not sent to New York.

Mr. Ward.— Now, as a matter of fact, Mr. Dexter, you know that they were, don't you?

Mr. Dexter.— Some of them might have been.

Mr. Ward.— Some of them were and you know it, don't you; tell us frankly because that helps a man and he feels relieved.

Mr. Dexter.— Yes, sir.

EXHIBIT NO. 128

Month of July, 1916

Date	Number pounds received	Milk shipped, cans	Cream shipped, cans
1.....	7,004	55	....
2.....	6,872	55	....
3.....	6,887	55	1
4.....	6,742	55	....
5.....	6,854	55	1
6.....	6,682	95	....
7.....	6,529	55	....
8.....	6,665	55	....
9.....	6,678	....	....
10.....	6,422	55	....
11.....	6,538	55	1
12.....	6,114	55	....
13.....	6,363	55	....
14.....	6,051	55	1
15.....	5,795	55	1
16.....	5,469	52	....
17.....	5,430	51	1
18.....	5,565	50	....
19.....	5,773	46	1
20.....	5,428	62	....
21.....	5,592	65	1
22.....	5,409	66	1
23.....	5,574	65	....
24.....	5,171	64	1
25.....	5,323	63	....
26.....	5,560	65	1
27.....	5,581	65	....
28.....	5,614	64	1
29.....	5,462	64	....
30.....	5,456	64	1
31.....	5,281	62	....

EXHIBIT NO. 129

Month of August, 1916, to date

Date	Number pounds received	Milk shipped, cans	Cream shipped, cans
1.....	5,222	62	1
2.....	5,279	62	....
3.....	5,211	60	1
4.....	5,180	60	....
5.....	4,587	53	....
6.....	4,760	56	....
7.....	4,502	53	1
8.....	4,454	52	....

NATIONAL DAIRY CO. (OHER),

(CHAS. OHER, Owner),

C. E. DEXTER, Superintendent,
Wampsville, N. Y."

CHRISTIAN OHER, called before the Committee and sworn as a witness, testified:

"I live at 158 Eagle street, Brooklyn. I am in the milk business and have been for twenty years. I have two stations, one at Wampsville, Madison county, and one at Hecla, Oneida county. A man by the name of O. Brown is in charge of my station at Wampsville. He has been there only a few months. Before that, Charles Dexter had charge of it. I don't know where he is now. I discharged him about two months ago because he didn't suit any more. I simply wanted to make a change. He was not satisfactory because he told a lie right before this Committee at Oneida. I saw it in the paper. I sold the milk I got from Wampsville. I have ten wagons and handle about 110 cans a day. I handle a little cream, as a rule. I sell it in quart jars bottled and pasteurized. I get it all from those two stations. If I found the Hecla man had lied to the Committee I would probably discharge him. I saw about the Wampsville station in the New York papers. Our company is called the National Dairy Company. I got a report from the Wampsville station of what I wanted to know; not each day. I know how much milk I bought, I got it on the sheet. At the end of the month he sent down his accounts. The only way I know what milk was bought each day was from the freight ticket.

Mr. Ward.—In what way did your man Dexter lie about the business before this Committee, as you gathered from the newspapers?

Mr. Oher.— Because he says that he separates cream. He never did no such thing. He didn't get any. I didn't authorize him to do it. He didn't ship any to me when I wanted him to. I cannot tell that what he said was false. He did say he made cream. Yes, he made cream. Certainly he did make cream. I didn't discharge Dexter because he said he made cream in the Wampsville station. He told the truth in that respect.

Mr. Ward.— Well, what did you discharge him for?

Mr. Oher.— Because — well he didn't suit me any more. I had a right to discharge him.

Mr. Ward.— But we want to know why he didn't suit.

Mr. Oher.— He didn't suit.

Mr. Ward.— We can appreciate that he didn't suit, but we want to know what you considered unsatisfactory.

Mr. Oher.— A whole lot of mays.

Mr. Ward.— Didn't you discharge him because he told this Committee the truth?

Mr. Oher.— No, sir; I didn't discharge him for that. That didn't have anything to do with it; I am quite sure of that.

Mr. Ward.— What did you discharge him for; you haven't told us yet?

Mr. Oher.— Because he said that in his statement, he said he used up the skim milk and told I had told him so, didn't he? He told the Committee he was using the skim milk up in cheese, didn't he? He said he made it into cheese; he said that you forced it out of him; if he would tell the truth he would be easier. I discharged him because he said this what I didn't tell him.

Mr. Ward.— What did he say that you didn't tell him?

Mr. Oher.— That I did not — what I didn't tell him?

Mr. Ward.— Yes.

Mr. Oher.— I told him — he said that you said that he made the milk into cheese.

Mr. Ward.— You didn't discharge him for saying that I said that he had made the milk into cheese; you didn't discharge him for that? You didn't care what I said?

Mr. Oher.— I didn't want him any more; that is why I discharged him; that is as far as I go; I cannot go further if I will tell you. He told me a lie; that is as far as I can tell you; if you don't go any farther I cannot go any farther.

Mr. Ward.— You mean if I don't tell you what you discharged him for?

Mr. Oher.— No, sir.

Mr. Ward.— That was, you discharged him because he told us the truth. Can you agree to that?

Mr. Oher.— That he told you the truth?

Mr. Ward.— Yes.

Mr. Oher.— I told him to make cream. I got some cream. I got some milk.

Mr. Ward.— And the record shows that the cans of milk that were shipped you were just equal to the cans you bought, plus the cream.

Mr. Oher.— I don't know about that.

Mr. Ward.— We were puzzled to know where the cans of cream came from and so was he.

Mr. Oher.— I don't know where he got it from. That is more than I know. I couldn't tell you whether or not he went out and bought it out of his own pocket; I don't know where he got it from.

Mr. Ward.— He said he got it out of the cooler. You know that.

Mr. Oher.— I don't know anything about it. I sold all the cream he shipped me on my wagons over in Brooklyn and all the milk he shipped me.

Mr. Ward.— His records show that he shipped you all the milk he bought and when you came to pay the bills at the end of the month you knew whether he asked you to pay for more than he had shipped you.

Mr. Oher.— If he had, I would want to know what it was. I didn't pay at the end of the month for more milk than had been brought down here. I know I paid for just what I got on the railroad.

It is not difficult to conclude from the foregoing evidence and exhibits that the National Dairy Company was illegitimately extracting cream from the milk handled by it and selling the remainder of the milk as whole milk. It is evident to the Committee that Mr. Dexter lost his job with the National Dairy Company solely by reason of the fact that in the end he preferred to admit the truth.

The Middle States Creamery Company is located at Canastota in Madison county. The Committee secured from the records of this company the daily report for the month of February, 1916, which is marked "138," was identified and established as being the original record of that company. It appears from an examination of this record that from milk shipped as market milk certain quantities of cream were first taken. The columns of quarts shipped in cans and cream shipped are stated to contain quantities shipped as whole milk and shipped as cream for market milk purposes.

EXHIBIT No. 138

MIDDLE STATES CREAMERY COMPANY, CANASTOTA, N. Y.

Daily Report

Month, Feb.	Stock	Re- ceipts	Total	Quarts shipped in cans	Whole con- densed	Cream 40%	Skim	Waste and shrink- age	Total	Bal- ance	Actual stock
1.....		8,449 2,474									
2.....	60	8,419 2,440	10,923	10,760		60		43	10,863	60	60
3.....		8,424 2,426	10,919	6,480	2,067	238	2,186	Over 52	10,971		
4.....		8,377 2,400	10,850	6,280	2,150	240	2,200	Over 20	10,870		
5.....		8,348 2,315	10,777	8,360	2,173	63		181	10,777		
6.....		8,421 2,465	10,663	6,720		280	2,968	695	10,663		
7.....		8,121 2,330	10,886	8,640	2,173	62		11	10,886		
8.....		8,651 2,393	10,451	7,320	3,100	80		Over 49	10,500		
9.....	400	8,504 2,350	11,044	8,420	2,173	37		14	10,644	400	400
10.....		8,544 2,385	11,254	9,040	1,908	53		253	11,254		
11.....		8,455 2,426	10,929	7,880		252	2,815	Over 18	10,947		
12.....	3,340	8,431 2,408	10,881	7,480		40		21	7,541	3,340	3,340
13.....	3,040	8,462 2,404	14,179	5,880	3,180	200	1,879		11,139	3,040	3,040
14.....	2,920	8,325 2,364	13,906	3,680		600	6,706		10,986	2,920	2,920
15.....	3,040	8,614 2,360	13,609	3,400	2,968	360	3,841		10,569	3,040	3,040
16.....	3,160	8,506 2,413	14,014	3,040		682	3,132		10,854	3,160	3,160
17.....		8,731 2,472	14,079	7,120		630	6,329		14,079		
18.....	1,400	8,603 2,414	11,203	6,720	2,968		1	115	9,803	1,400	1,400
19.....	480	8,745 2,528	12,417	5,280		560	6,097		11,937	480	480
20.....	160	8,571 2,425	11,753	5,320		520	5,753		11,593	160	160
21.....	310	8,382 2,396	11,156	6,480	3,021	135	1,210		10,846	310	310
22.....		8,516 2,557	11,088	7,900		228	2,915	45	11,088		
23.....		8,909 2,528	11,073	4,960	2,067	375	3,671		11,073		
			11,437	8,080	3,180	46		131	11,437		

EXHIBIT No. 138 — (Continued)

Month, Feb.	Stock	Re- ceipts	Total	Quarts shipped in cans	Whole con- densed	Cream 40%	Skim	Waste and shrink- age	Total	Bal- ance	Actual stock
24.....		8,888 2,512									
25.....		8,945 2,591	11,400	8,000	.....	359	3,591	.....	11,400	.....	.....
26.....		8,734 2,604	11,536	8,340	2,750	34	.....	112	11,536	.....	.....
27.....		8,083 2,440	11,338	6,360	.....	406	4,572	.....	11,338	.....	.....
28.....	1,564	5,911	10,523	6,160	3,259	40	.....	.....	9,459	1,064	1,064
29.....		11,400 4,009	6,775	5,840	.....	95	1,007	33	6,975	.....	.....
			15,405	2,000	3,354	560	5,596	.....	11,510	3,899	3,899

JOHN ROFF, being called before the Committee, testified:

"I am the superintendent of the Middle States Creamery Company at Canastota. It is a stock company consisting of different stockholders. The president of the company is Charles Cook of Brooklyn, N. Y. The other stockholders are R. H. Brandley and J. B. Bedford of Brooklyn, and myself. The directors are Mr. Cook, Mr. Brandley, and myself. The secretary and bookkeeper is C. B. Day of Oneida. He is not a stockholder. Mr. Cook is the president and treasurer. We make condensed milk of different kinds and make cream. The cream we dispose of to the local trade and the balance ship to Mr. Charles Cook of Brooklyn. He is in the milk business independently of this company, under the name of the Cook Milk and Cream Company, Graham avenue and Powers street."

C. B. DAY, called as a witness, testified:

"I live in Oneida and I am the bookkeeper of the Middle States Creamery Company of Canastota. In June we shipped the milk to the Cook Milk and Cream Company of Brooklyn. We do not ship every day, only occasionally when we had any. I have the record here for July. There is also condensed, full condensed and cream shipped. These sheets show the amount of crude milk that goes into the whole condensed and the amount we shipped and the amount we made into skim milk. We sell our skim milk condensed to customers around central New York and elsewhere. We have

a pasteurizer and the milk we ship to New York is whole milk after it has been pasteurized. Nothing remains in the bottom of the pasteurizer in our plant; it all runs out. You have our sheet there, Exhibit 138. The heading, milk, shows the milk we shipped and the cream shipped and the amount is made to balance. If anything is carried over into butter that is carried the same way. We occasionally make butter. This shows the amount of cream we make and shows the amount we have taken out in skim milk. Here is the cream sheet. We buy a lot of skim milk. We don't buy anything else except whole milk. We do not buy any cream. It takes a little less than 4 quarts of whole milk to make a quart of whole condensed, a little better, I think, than 3.8 quarts. In this report at the head of it is the month, then the day of the month in the first column, and in the second column we put down the amount of stock that was carried over from the previous day and the amount received for that day. The total is in the fourth column. In the fifth column we put the amount of milk we shipped out in cans. In the seventh column the amount in quarts that is made into whole condensed. In the ninth, we put down the amount of 40 per cent cream that we make and in the tenth column, we put down the amount of skim milk that results. I keep them accurately all through the year since that record was opened. It was opened last October.

Mr. Ward.— On February 1st you had in all 10,923 quarts of milk and you shipped 10,760 quarts to New York and you made 60 quarts of cream and had 43 quarts waste.

Mr. Day.— Yes, sir.

Mr. Ward.— You shipped to New York out of 10,923 quarts received, 10,760 quarts to the Cook Milk and Cream Company and you made out of that milk the 60 quarts of cream.

Mr. Day.— Yes, sir.

Mr. Ward.— Did you separate it; was it run through the separator?

Mr. Day.— I cannot tell you.

Mr. Ward.— You cannot tell how they made it?

Mr. Day.—No, sir; that is the way it was reported to me by the superintendent, Mr. Roff.

Mr. Ward.—On the 4th, you received 10,777 quarts and you shipped 8,360 quarts of whole milk and made 2,173 quarts into whole condensed milk. You made 63 quarts of 40 per cent cream and had a waste or shrinkage of 181 quarts, and that balanced the account.

Mr. Day.—Yes, sir.

Mr. Ward.—Neither on the 1st or 4th, did you have any skim milk.

Mr. Day.—I cannot explain that, I am sure.

Mr. Ward.—How could you make 60 quarts of cream there on the 1st and ship all the whole milk to New York?

Mr. Day.—I cannot explain it, I am sure.

Mr. Ward.—The fact is they took those 60 quarts on the 1st and 63 on the 4th out of this whole milk, didn't they?

Mr. Day.—It looks that way, yes.

Mr. Ward.—There is not any dispute frankly that that 60 quarts of cream came out of the milk that went to New York?

Mr. Day.—No.

Mr. Ward.—And that is true for each one of those days where your sheets do not show a skim milk product?

Mr. Day.—Yes, sir.

Mr. Ward.—You notice on those days the amount of cream made is relatively small, a can or a little over a can.

Mr. Day.—Yes, sir.

Mr. Ward.—So that can of cream was just naturally collected off of those other cans?

Mr. Day.—Yes, sir.

Mr. Ward.—On April the 2nd, you received 12,943 quarts and shipped 5,880 quarts and made into whole condensed milk 7,102 quarts and you made 80 quarts of cream and no skim milk. Now,

that 80 quarts necessarily came as before out of the milk shipped to New York or the whole condensed milk?

Mr. Day.— Yes, sir.

Mr. Ward.— So that, really the whole condensed milk was not whole condensed milk unless the 80 quarts were taken out of the New York shipments, which is not probable, is it?

Mr. Day.— I don't know, I am sure.

Mr. Ward.— How do you explain how they got those 80 quarts?

Mr. Day.— I cannot explain it, I am sure; I know nothing about the operation of the plant whatever.

Mr. Ward.— It would look as though they were skimming milk, wouldn't it?

Mr. Day.— It looks that way, yes, sir.

(Sheet Marked 138 and received in evidence.)

CHARLES COOK, called before the Committee, testified as follows:

Mr. Ward.— I show you Exhibit 138. Is it obvious to you at a glance what that report shows?

Mr. Cook.— No, sir. These are the daily receipts; this is the quantity of cream shipped. The item of the 6th of February shows on that date they produced 62 quarts of cream and that there was no skim milk to offset it.

Mr. Ward.— Now, what we want to know is whether from your experience and judgment that is a usual and very customary practice.

Mr. Cook.— I frankly say, it is not. Not at the present time. I think probably, oh, fifteen or twenty years ago, it was. I don't believe that general condition existed as recent as eight or ten years ago. I have never seen the sheet before. I don't believe that the practice shown by that sheet existed to any extent. I haven't any doubt as to what these sheets reveal. That has no connection with the Cook Milk and Cream Company. I do not believe it is a general practice, only an isolated instance. Of course, the milk at that

season of the year is abundantly fat so that it can stand that drain and still have a good quality of market milk left, but I do not think it is practiced to any extent. These instances would make it seem that those particular places were practicing it. That is more general than I would expect to find it. It would seem that such practices would become known to the dairymen and that it would result in a feeling of unrest and insecurity as to accurate and truthful dealing between the dairyman and the man who is receiving the milk. He would have a reason not to have confidence if he saw there were practices of that kind in operation.

CONCLUSION

This Committee has not audited the station records of every milk company doing business in the State. Such a task would be impossible for this Committee. In no other instance did the station records seem to convict the operator of these unlawful practices. In two or three other instances, the reluctance of the station employees to produce records or the alleged loss of records leads to the suspicion of similar practices.

The Committee, however, did carefully examine the station record of a great number of other companies besides the three set out in detail above. Lest from these three instances here given it may be assumed that the conditions therein described are general throughout the State and in all milk stations, it is proper for the Committee to say that in examining and checking the records of hundreds of other stations no such conditions were revealed.

The Committee found in the stations of all the well-conducted companies accurate and well balanced records showing the amount of milk received and the disposition of it, and where cream was produced in such stations, the records invariably showed not only the production of the accompanying amount of skim milk, but the disposition of that skim milk and the amount of resulting product either in skim milk cheese, casein or pot cheese. It would therefore be an unjust reflection upon the integrity, business practices and methods of the great body of responsible milk distributors in the State of New York if the Committee did not state in this report the results of its examination of the books, accounts and daily records kept by them. To enumerate all of the companies where

the station records and books were found in absolute balance as required by law under a careful system of bookkeeping, whose employees were able to show the disposition of every pound of milk which came into the plant, would perhaps be the best way of freeing such companies from the suspicions created by practices of the three companies or dealers referred to above, but such method in itself might be injurious to some certain companies or dealers whose books did not come under the examination of the Committee. Therefore, it seems proper to state that the above three instances, out of many score of stations examined, are the only ones where it can be asserted from the records that illegitimate methods were practiced. That there may be certain other instances in the other concerns or stations whose records did not come under the examination of the Committee is possible, and in some two or three instances, probable. In the great majority of milk receiving stations operated by responsible individuals or companies, the condition of their books and records on examination establishes that such practices are not resorted to in any way, but that instead, an effort is made to constantly improve the butter fat content of the milk supplied to their customers instead of robbing it.

PROBLEM OF BARN SCORING

The Agricultural Laws of the State provide for a method of scoring a dairy barn. In order that the report may not be barren of information upon this point, we include herein a dairy score card of the farm of M. S. Myers at Barnerville, Schoharie county, made March 22, 1911, by H. S. Smith, an agent of the Department of Agriculture. A score card now used by the State Department of Agriculture is also shown.

STATE OF NEW YORK—DEPARTMENT OF AGRICULTURE

DAIRY SCORE CARD

Based on card adopted by the Official Dairy Instructors' Association.

(Subject to revision.)

Owner or lessee of farm.....M. S. Myers

P. O. address, Barnerville.....; County.....

Number of cows.....28.....Number milking.....22.....

Quarts of milk now being produced daily.....225.....

Product is retailed by producer in.....

Sold at wholesale to Normanskill Dairy Company.....

For milk supply of.....Albany.....

Permit No.....Date of inspection.....Mar. 22....1911.

Remarks.....

H. S. SMITH,
Agent.

(Reverse side of score card)

	EQUIPMENT	Score Perfect	Allowed
Cows :			
Health	1	6	1
Apparently in good health.....	1	....	1
If tested with tuberculin once a year and no tuberculosis is found, or if tested once in six months and all reacting animals removed.....	5	....	....
(If tested only once a year and reacting animals found and removed, 2.)			
Comfort.....	5	2	2
Bedding.....	1	....	1
Temperature of stable.....		....	1
Food.....		2	2
Water.....		2	2
Clean and fresh.....	1	....	....
Convenient and abundant.....	1	....	....
Light: four square feet of glass per cow.....		4	4
(Three square feet, 3; 2 square feet, 2; 1 square foot, 1, Deduct for uneven distribution.)			
Ventilation: Automatic system.....		3	3
(Adjustable windows, 1.)			
Cubic feet of space for cow; 500 to 1,000 feet.....		3	3
(Less than 500 feet, 2; less than 400 feet, 1; less than 300 feet, 0; over 1,000 feet, 0.)			
Stables:			
Location of stable.....	1	2	2
Well drained.....	1	....	....
Free from contaminating surroundings.....	1	....	....
Construction of stable.....		4	4
Tight, sound floor and proper gutter.....	2	....	....
Smooth, tight walls and ceiling.....	1	....	....
Proper stall, tie, and manger.....	1	....	....

Utensils:

Construction of utensils	1	1
Water for cleaning	1	1
(Clean, convenient and abundant.)		
Small-top milking pail	3	3
Facilities for hot water or steam	1	....
(Should be in milk house, not in kitchen.)		
Milk cooler	1	1
Clean milking suits	1	....

Handling of milk:

Location of milk room	2	2
Free from contaminating surroundings	1	....
Convenient	1	....
Construction of milk room	2	1.5
Floor, walls, and ceiling	1	....
Light, ventilation, screens	1	....
Total	40	32.5

METHODS

Score
Perfect Allowed

Cows and stables:

Cleanliness of cows	8	8
Cleanliness of stables	6	6
Floor	2	....
Walls	1	....
Ceiling and ledges	1	....
Mangers and partitions	1	....
Windows	1	....
Stable air	6	6
Barnyard clean and well drained	2	2
Removal of manure daily to field or proper pit	2	2
(To 50 feet from stable, 1.)		

Utensils and milking:

Care and cleanliness of utensils	8	7
Thoroughly washed and sterilized in live steam for 30 minutes	5	....
(Thoroughly washed and placed over steam jet, 4; thoroughly washed and scalded with boiling water, 3; thoroughly washed, notscalded, 2.)		
Inverted in pure air	3	....
Cleanliness of milking	9	7
Clean, dry hands	3	....
Udders washed and dried	6	....
(Udders cleaned with moist cloth, 4; cleaned with dry cloth at least 15 minutes before milking, 1.)		

Handling the milk:

Cleanliness of attendants	1	1
Milk removed immediately from stable	2	2
Cleanliness of milk room	3	3
Prompt cooling (cooled immediately after milking each cow)	2	....
Efficient cooling; below 50 degrees F.	5	5
(51° F to 55° F, 4; 56° F. to 60° F., 2.)		
Storage; below 50° F.	3	3
(51° to 55°, 2; 56° to 60°, 1.)		

Transportation; iced.....	3	3
(For jacket or wet blanket allow 2; dry blanket of covered wagon, 1.)		
Total.....	60	55

Score for equipment 32.5 + Score for methods 55=Final score, 87.5.

Note 1.—If any filthy condition is found, particularly dirty utensils, the total score shall be limited to 49.

Note 2.—If the water is exposed to dangerous contamination or there is evidence of the presence of a dangerous disease in animals or attendants, the score shall be 0.

STATE OF NEW YORK—DEPARTMENT OF AGRICULTURE

DAIRY SCORE CARD — 1917

Owner or lessee of farm.....
 P. O. address..... County.....
 Total number of cows..... Number milking.....
 Gallons of milk produced daily.....
 Product is sold by producer in families, hotels, restaurants, stores,
 to.....dealer.
 For milk supply of.....
 Permit No..... Date of inspection....., 191
 REMARKS:

(Signed)

Inspector.

(Reverse side of score card)

	Cows	EQUIPMENT	Score	
			Perfect	Allowed
Health.			6	....
Apparently in good health.....	1			
If tested with tuberculin within a year and no tuberculosis is found, or if tested within six months and all reacting animals removed.....	5			
(If tested within a year and reacting animals are found and removed, 3.)				
Food (Clean and wholesome.....)			1	....
Water (clean and fresh).....			1	....
Stables				
Location of stable.....			2	....
Well drained.....	1			
Free from contaminating surroundings.....	1			
Construction of stable.....			4	....
Tight, sound floor and proper gutter.....	2			
Smooth, tight walls and ceiling.....	1			
Proper stall, tie, and manger.....	1			
Provision for light: Four square feet of glass per cow..... (Three square feet, 3; two square feet, 2; one square foot, 1. Deduct for uneven distribution.)			4	....
Bedding.			1	....
Ventilation.			7	....

Provision for fresh air, controllable flue system.....	3	
(Windows hinged at bottom, 1.5; sliding windows, 1; other openings, 0.5.)		
Cubic feet of space per cow, 500 feet.....	3	
(Less than 500 feet, 2; less than 400 feet, 1; less than 300 feet, 0.)		
Provision for controlling temperature.....	1	
Utensils		
Construction and conditions of utensils.....	1	....
Water for cleaning.....	1	....
(Clean, convenient and abundant.)		
Small-top milking pail.....	5	....
Milk cooler	1	....
Clean milking suits.....	1	....
Milk Room or Milk House.		
Location: Free from contaminating surroundings.....	1	....
Construction of milk room.....	2	....
Floor, walls, and ceiling.....	1	
Light, ventilation, screens.....	1	
Separate rooms for washing utensils and handling milk.....	1	....
Facilities for steam.....	1	....
(Hot water, 0.5.)		
Total.....	40	....

Cows	METHODS	Score	
		Perfect	Allowed
Clean.....		8	....
(Free from visible dirt, 6.)			
Stables.			
Cleanliness of stables.....		6	....
Floor.....	2		
Walls.....	1		
Ceiling and ledges.....	1		
Mangers and partitions.....	1		
Windows.....	1		
Stable air at milking time.....		5	....
Freedom from dust.....	3		
Freedom from odors.....	2		
Cleanliness of bedding.....		1	....
Barnyard.....		2	....
Clean.....	1		
Well drained	1		
Removal of manure daily to 50 feet from stable.....		2	....
Milk Room or Milk House.			
Cleanliness of milk room.....		3	....
Utensils and Milking.			
Care and cleanliness of utensils.....		8	....
Thoroughly washed.....	2		
Sterilized in steam for 15 minutes.....	3		
(Placed over steam jet, or scalded with boiling water..	2		
Protected from contamination.....	3		
Cleanliness of milking.....		9	....
Clean, dry hands.....	3		
Udders washed and wiped.....	6		
(Udders cleaned with moist cloth, 4; cleaned with dry cloth or brush at least 15 minutes before milking, 1.)			

Handling the Milk.

Cleanliness of attendants in milk room.....	2	....
Milk removed immediately from stable without pouring from pail.	2	....
Cooled immediately after milking each cow.....	2	....
Cooled below 50° F.....	5	....
(51° to 55°, 4; 56° to 60°, 2.)		
Stored below 50° F.....	3	....
(51° to 55°, 2; 56° to 60°, 1.)		
Transportation below 50° F.....	2	....
(51° to 55°, 1.5; 56° to 60°, 1.)		
(If delivered twice a day, allow perfect score for storage and transportation.)		
Total.	60	....

Equipment + Methods = Final Score

Note. 1.—If any exceptionally filthy condition is found, particularly dirty utensils, the total score may be further limited.

Note 2.—If the water is exposed to dangerous contamination, or there is evidence of the presence of a dangerous disease in animals or attendants, the score shall be 0.

So far as the evidence presented to this Committee shows, the scoring by the Department of Agriculture of dairy farms has been barren of practical result and from the lack of evidence on that subject has probably fallen into general disuse. The Department of Health of the city of New York some years since undertook the scoring of dairy barns. This has led to many controversies between the dairyman, the station managers and the agents of the department. Various allegations were made by dissatisfied dairymen with the scoring of the city inspectors. The Committee endeavored so far as possible to secure all available evidence as to the cause and reason of such disputes. Corruption on the part of the agent of the city department was frequently hinted at, but more often it was alleged that the agent of the department was acting in the interest of the purchasing company to lower the barn score to the end that the company should receive the milk at a lower price. In those cases where the Committee was able to secure testimony on both sides of the question and to confront the complaining dairyman with the inspector and submit both sides to cross-examination, the evidence seemed to establish that the difficulties arose from a misunderstanding or lack of attention to the questions involved by one side or the other to the controversy and without sinister purposes on the part of either. The system of barn scoring was complicated, the work of the inspectors of the Department of Health was hurried, and they were required to cover a large field.

The dairymen frequently misunderstood the requirements of the barn score and the loss of ten cents a hundred pounds frequently caused a bitter feeling. Nevertheless, the barn score had come to be established over a great part of the State and was and is to a considerable extent adhered to by the buyers of market milk. In examining the whole question, it is fair to say that as a whole no such extensive complaint or dissatisfaction has arisen as might well have been expected from so extensive a work. The Committee is satisfied that it has been the general policy of the Department of Health of the City of New York to bring about improved conditions with the least possible friction with the dairymen and to use all reasonable means to enforce the regulations without making them unduly burdensome. The city inspection has been much more burdensome and troublesome to the operators of the milk gathering station than it has to the dairymen and has been much more rigidly enforced upon the milk companies than upon the dairymen. The documentary history of one of these controversies is shown by a series of score cards, the first dated December 6, 1915; the second, December 20, 1915; the third, March 15, 1916; and the fourth, June 12, 1916, of the farm of Theodore F. Seybold at Durhamville, Oneida county, N. Y.

DAIRYMAN'S DUPLICATE SCORE

79 X-1913

	File
Equipment	40% Score 29
Methods	60% Score 39
Perfect dairy	100% Score 68

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of Food Inspection

Inspection No.	Time	A. P. M.	Date	Dairy Report
1. Dairyman	Seybold, Theo. F.	Owner	Same	Dec 6 1915
2. P. O. address	Durhamville	P. O. address	State.	
3. County	Oneida	State,	N. Y.	Party interviewed.....
4. Milk delivered to creamery at.....				Formerly at.....
5. Operated by	Levy Dairy Company.			Address.....
6. Distance of farm from creamery.....				Occupied farm since. life
7. No. cows, 19	No. milking, 15			No. quarts produced. 120
8. All persons in the households of those engaged in producing or handling milk are.....				free from all infectious disease. Weekly reports are not being filed.
9. Date and nature of last case on farm.....				
10. Water supply for utensils is from a well located at house.....				feet deep and apparently pure and wholesome. State any possible contamination located within 200 feet of source of water supply or if water supply is not protected against surface drainage.
11. Water supply on this farm analyzed, 191.				Result.....
12. Style of cow barn; Length, 40 feet. Width, 30 feet. Height of ceiling.....				feet.
13. Dairy rules of the department of health are posted.				
14. Dairy herd examined by Burleigh on.....				1915. Report.....

EQUIPMENT		Perfect	Allow
15.	Cow stable is located on elevated ground with no stagnant water, privy, uncovered cesspool or manure pit within 100 feet.	1	1
16.	Floors, other than cow beds, are of concrete or some non-absorbent material.	2	2
17.	Floors are properly graded and water-tight.	2	2
18.	Cow beds are of concrete or planks on concrete.	2	2
19.	Drops are constructed of concrete, stone or some non-absorbent material.	2	2
20.	Drops are water-tight and space beneath is clean and dry.	2	2
21.	Ceiling is constructed of board and is tight and dust proof.	2	2
22.	Windows, number seven, total square feet 44, there is two square feet of window light for each 600 cubic feet air space (one square foot per each 600 cubic feet, 1)	2	2
23.	Ventilation consists of square feet muslin covered openings or 15 square feet open chutes in ceiling or slide windows which is sufficient, 3; fair, 2; poor, 1; insufficient, 0	3	2
24.	Air space is. cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 1) (under 400, 0).	3	2
25.	Live stock, other than cows, are excluded from rooms in which milch cows are kept.	2	2
26.	There is no direct opening from stable into silo or grain pit. .	1	1
27.	Separate quarters are provided for cows when calving or sick. .	1	1
28.	Cow yard is properly graded and drained.	2	2
29.	Water supply for cows is unpolluted and plentiful.	1	1
30.	Milk house has direct opening into cow barn or other building. .	1	0
31.	Milk house has sufficient light and ventilation.	1	0
32.	Floor is properly grade and water-tight.	1	0
33.	Milk house is properly screened to exclude flies.	1	0
34.	Milk pails are of smoothly tinned metal in good repair.	1	1
35.	Milk pails have all seams soldered flush.	2	2
36.	Milk pails are not of the small mouthed design, top opening not exceeding eight inches in diameter. Diameter, 14. . .	2	0
37.	Racks are not provided to hold milk pails and cans when not in use.	2	0
38.	Special milking suits are not provided.	1	0
		<hr/> 40	<hr/> 29

METHODS

39.	Stable interior painted or whitewashed on 1915, which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0.	3	3
40.	Feeding troughs, platforms or cribs are well lighted and clean.	1	1
41.	Ceiling is free from hanging straw, dirt or cobwebs.	3	3
42.	Window panes are washed and kept clean.	1	1
43.	Walls and ledges are free from dirt, dust, manure or cobwebs. .	2	2
44.	Floors and premises are free from dirt, rubbish or decayed animal or vegetable matter.	2	2
45.	Cow beds are clean, dry and no horse manure used thereon. . .	2	2
46.	Manure is removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0.	4	4
47.	Liquid matter is not allowed to saturate ground under or around cow barn.	2	2
48.	Milking stools are not clean.	1	0
49.	Cow yard is clean and free from manure.	2	2
50.	Cows have not been tuberculin tested and all tuberculous cows removed.	7	0
51.	Cows are all in good flesh and condition at time of inspection. .	2	2
52.	Cows are all free from clinging manure and dirt. (No. dirty.)	4	4

	Perfect	Allow
53. Long hairs are kept short on belly, flanks, udder and tail..	1	1
54. Udder and teats of cows are not thoroughly brushed and wiped with a clean damp cloth before milking.	3	0
55. All feed is of good quality and distillery waste or any sub- stance in a state of putrefaction is not fed.	2	2
56. Milking is done with dry hands.	2	2
57. Fore milk or first few streams from each teat is discarded..	2	2
58. Clothing of milkers is clean.	1	1
59. Facilities for washing hands of milkers are provided in cow barn or milk house floor.	2	..
60. Milk is strained at barn and in clean atmosphere.	1	1
61. Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1.	3	1
62. Ice is used for cooling milk.	1	0
63. Milk house is free from dirt, rubbish and all material not used in the handling and storage of milk.	1	0
64. Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solu- tion, not at night.	2	0
65. Utensils are sterilized by steam or boiling water after each using.	2	0
66. Privy is in sanitary condition, with vault and seats covered and protected.	1	1
	<u>60</u>	<u>37</u>

Remarks.

Duplicate score received.

Dairyman.

A. H. MISSILDINE,
Inspector of Foods.

(Reverse side of Dairyman's Duplicate Score)

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

RULES AND REGULATIONS WHICH SHOULD BE OBSERVED BY DAIRYMEN IN THE CARE OF COWS AND HANDLING OF MILK SHIPPED TO THE CITY OF NEW YORK

The Cows

1. The cows must be kept clean, and manure must not be permitted to collect upon the tail, sides, udder and belly of any milch cow.

2. The cows should be groomed daily, and all collections of manure, mud or other filth must not be allowed to remain upon their flanks, udders or bellies during milking.

3. The clipping of long hairs from the udder and flanks of the cows is of assistance in preventing the collection of filth which may drop into the milk. The hair on the tails should be cut, so that the brush will be well above the ground.

4. The udders and teats of the cow should be thoroughly cleaned before milking; this to be done by thorough brushing and the use of a cloth and warm water.

5. To prevent the cows from lying down and getting dirty between cleaning and milking, a throat latch of rope or chain should be fastened across the stanchions under the cow's neck.

6. Only feed which is of good quality and only grain and coarse fodders which are free from dirt and mould should be used. Distillery waste or any substance in the state of fermentation or putrefaction must not be fed.

7. Cows which are not in good flesh and condition should be immediately removed and their milk kept separate until their health has been passed upon by a veterinarian.

8. An examination by a veterinary surgeon should be made at least once a year.

The Stable

9. No stagnant water, hog-pen, privy or uncovered cesspool or manure pit should be maintained within 100 feet of the cow stable.

10. The cow stable should be provided with some adequate means of ventilation, either by the construction of sufficient air chutes extending from the room in which the cows are kept to the outside air, or by the installation of muslin stretched over the window openings.

11. Windows should be installed in the cow barn to provide sufficient light (2 sq. ft. of window light to each 600 cubic feet of air space the minimum) and the window panes be washed and kept clean.

12. There should be at least 600 cubic feet of air space for each cow.

13. Milch cows should be kept in a place which is used for no other purpose.

14. Stable floors should be made water-tight, be properly graded and well drained, and be of some non-absorbent material. Cement or brick floors are the best, as they can be more easily kept clean than those of wood or earth.

15. The feeding troughs and platforms should be well lighted and kept clean at all times.

16. The ceiling should be thoroughly swept down and kept free from hanging straw, dirt and cobwebs.

17. The ceiling must be so constructed that dust and dirt therefrom shall not readily fall to the floor or into the milk. If the space over the cows is used for storage of hay, the ceiling should be made tight to prevent chaff and dust from falling through.

18. The walls and ledges shall be thoroughly swept down and kept free from dust, dirt, manure and cobwebs, and the floors and premises be kept free from dirt, rubbish and decaying animal or vegetable matter at all times.

19. The cow beds should be so graded and kept that they will be clean and sanitary at all times.

20. Stables should be whitewashed at least twice a year unless the walls are painted or are of smooth cement.

21. Manure must be removed from the stalls and gutters at least twice daily. This must not be done during milking, nor within one hour prior thereto.

22. Manure should be taken from the barn, preferably drawn to the field. When the weather is such that this cannot be done, it should be stored not nearer than 200 feet from the stable and the manure pile should be so located that the cows cannot get at it.

23. The liquid matter should be absorbed and removed daily and at no time allowed to overflow or saturate the ground under or around the cow barn.

24. Manure gutters should be from six to eight inches deep, and constructed of concrete, stone or some non-absorbent material.

25. The use of land plaster or lime is recommended upon the floors and gutters.

26. Only bedding which is clean, dry and absorbent should be used, preferably sawdust, shavings, dried leaves or straw. No horse manure should be used as bedding.

27. The flooring where the cows stand, should be so constructed that all manure may drop into the gutter and not upon the floor itself.

28. The floor should be swept daily. This must not be done within one hour prior to milking time.

29. If individual drinking basins are used for the cows they should be frequently drained and cleaned.

30. All live stock other than cows should be excluded from the room in which the milch cows are kept. (Calf or bull pens may be allowed in the same room if kept in the same clean and sanitary manner as the cow beds.)

31. The barnyard should be well drained, and should be as much sheltered as possible from the wind and cold. Manure should not be allowed to collect therein.

32. A suitable place in some separate building should be provided for the use of the cows when sick, and separate quarters must be provided for the cows when calving.

33. There should be no direct opening from any silo or grain pit into the room in which the milch cows are kept.

The Milk House

34. A milk house must be provided which is separated from the stable and dwelling. It should be located on elevated ground, with no hog-pen, privy or manure pile within 100 feet.

35. It must be kept clean and not used for any purpose except the handling of milk.

36. The milk house should be provided with sufficient light and ventilation, with floors properly graded and made water-tight.

37. It should be provided with adjustable sashes to furnish sufficient light and some proper method of ventilation should be installed.

38. The milk house should be provided with an ample supply of clean water for cooling the milk, and if it is not a running supply, the water should be changed twice daily. Also a supply of clean ice should be provided to be used for cooling the milk to 50 degrees within two hours after milking.

39. Suitable means should be provided within the milk house, to expose the milk pails, cans and utensils to the sun or to live steam.

40. Facilities consisting of wash basins, soap and towel should be provided for the use of milkers before and during milking. During the summer months the milk house should be properly screened to exclude flies.

The Milkers and Milking

41. Any person having any communicable or infectious disease, or one caring for persons having such disease, must not be allowed to handle the milk or milk utensils.

42. The hands of the milkers must be thoroughly washed with soap and water, and carefully dried on a clean towel before milking.

43. Clean overalls and jumpers should be worn during the milking of the cows. They should be used for no other purpose, and when not in use should be kept in a clean place protected from dust.

44. The hands and teats should be kept dry during milking. The practice of moistening the hands with milk is to be condemned.

45. The milking stools should be at all times kept clean, and iron stools are recommended.

46. The first streams from each teat should be rejected, as this fore milk contains more bacteria than the rest of the milk.

47. All milk drawn from the cows 15 days before or 5 days after parturition should be rejected.

48. The pails in which the milk is drawn should have as small an opening at the top as can be used in milking; top opening preferably not to exceed 8 inches in diameter. This lessens the contamination by dust and dirt during milking.

49. The milking should be done rapidly and quietly, and the cows should be treated kindly.

50. Dry fodder should not be fed to the cows during or just before milking, as dust therefrom may fall into the milk.

51. All milk utensils, including pails, cans, and dippers, must be kept thoroughly clean and must be washed and scalded after each using, and all seams in these utensils should be cleaned, scraped and soldered flush.

The Milk

52. Milk from diseased cows must not be shipped.

53. The milk must not be in any way adulterated.

54. The milk as soon as drawn should be removed to the milk house and immediately strained and cooled to the proper temperature.

55. All milk must be cooled to a temperature below 50 degrees F., within two hours after being drawn, and kept thereafter below that until delivered to the creamery.

56. The milk should be strained into cans which are standing in ice water which reaches the neck of the can. The more rapidly the milk is cooled, the safer it is, and longer it will keep sweet. Ice should be used in cooling milk, as very few springs are cold enough for the purpose.

57. If aerators are used, they should stand where the air is free from dust or odors, and on no account should they be used in the stable, or out of doors.

58. Milk strainers should be kept clean; scalded a second time just before using, and if cloth strainers are used, several of them should be provided, in order that they may be frequently changed during the straining of the milk.

59. The use of any preservative or coloring matter is adulteration, and its use by a producer or shipper will be sufficient cause for the exclusion of his product from the City of New York.

Water Supply

60. The water supply used in the dairy and for washing utensils should be absolutely free from contamination, sufficiently abundant for all purposes, and easy of access.

61. This supply should be protected against flood or surface drainage.

62. The privy should be located not nearer than 100 feet of the source of the water supply, or else be provided with a watertight box that can be removed and cleaned, and so constructed that at no time will the contents overflow or saturate the surrounding ground.

63. The source of the water supply should be rendered safe against contamination by having no stable, barn-yard, pile of manure or other source of contamination located within 200 feet of it.

By Order of the Board of Health.

EUGENE W. SCHEFFER,
Secretary.

ERNST J. LEDERLE, Ph. D.,
President.

79 X 1913

DAIRYMAN'S DUPLICATE SCORE CARD

	File.....	
Equipment	40%	Score 30
Methods	60%	Score 46
Perfect Dairy	100%	Score 76

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of Food Inspection

Dairy Report

Inspection No. Time, 11:25 A. P. M. Date, June 12, 1915

1. Dairyman Seybold, Theo. F. Owner, Same
2. P. O. address, Durhamville. P. O. address, State.
3. County, Oneida; State, New York. Party interviewed, C. Reynolds, T. Seybold.
4. Milk delivered to Creamery at State Bridge. Formerly at.....
5. Operated by Levy Dairy Company. Address, 19th street and Avenue 13
6. Distance of farm from creamery, one-half mile. Occupied from since...
7. Number cows, 15 Number milking, 15 Number quarts produced, 150
8. All persons in households of those engaged in producing or handling milk are free from all infectious disease. Weekly reports are not being filed.
9. Date and nature of last case on farm.....

10. Water supply for utensils is from a well, located at house,feet deep and apparently is pure and wholesome. State and possible contamination located within 200 feet of source of water supply or if water supply is not protected against surface drainage.....
11. Water supply on this farm analyzed.....191..... Result.....
12. Style of cow barn, oblong. Length, 40 feet. Width, 30 feet. Height of ceiling, 8 feet.
13. Dairy rules of the Department of Health are posted.
14. Dairy herd examined by Farr, on 1916. Report.....

EQUIPMENT

	Perfect	Allow
15. Cow stable is located on elevated ground with no stagnant water, hog-pen, privy, uncovered cesspool or manure pit within 100 feet.....	1	1
16. Floors, other than cow beds, are of concrete or some non-absorbent material.....	2	2
17. Floors are properly graded and water-tight.....	2	2
18. Cow beds are of concrete or planks laid on concrete.....	2	2
19. Drops are constructed of concrete, stone or some non-absorbent material.....	2	2
20. Drops are water-tight and space beneath is clean and dry..	2	2
21. Ceiling is constructed of board and is tight and dust proof	2	2
22. Windows, number 7, total square feet, 36; there is two square feet of window light for each 600 cubic feet air space (one square foot per each 600 cubic feet, 1).....	2	2
23. Ventilation consists of four square feet muslin covered openings or 20 square feet open chutes in ceiling or slide windows.....which is sufficient, 3; fair, 2; poor, 1; insufficient, 0.....	3	3
24. Air space is 600 cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 1) (under 400, 0).....	3	3
25. Live stock, other than cows, are excluded from rooms in which milch cows are kept.....	2	2
26. There is no direct opening from stable into silo or grain pit	1	1
27. Separate quarters are provided for cows when calving or sick	1	1
28. Cow yard is properly graded and drained.....	2	2
29. Water supply for cows is unpolluted and plentiful.....	1	1
30. Milk house has no direct opening into cow barn or other building.....	1	0
31. Milk house none, sufficient light and ventilation.....	1	0
32. Floor is properly graded and water-tight.....	1	0
33. Milk house is properly screened to exclude flies.....	1	0
34. Milk pails are of smoothly tinned metal in good repair....	1	1
35. Milk pails have all seams soldered flush.....	2	2
36. Milk pails are not of the small mouthed design, top opening not exceeding 8 inches in diameter.....	2	0
37. Racks are not provided to hold milk pails and cans when not in use.....	2	0
38. Special milking suits are not provided.....	1	0
	<u>40</u>	<u>30</u>

METHODS

39. Stable interior painted or whitewashed on 1915, which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0.....	3	2
40. Feeding troughs, platforms or cribs are well lighted and clean.....	1	1
41. Ceiling is free from hanging straw, dirt or cobwebs.....	3	3
42. Window panes are washed and kept clean.....	1	1
43. Walls and ledges are not free from dirt, dust, manure or cobwebs.....	2	0

	Perfect	Allow
44. Floors and premises are free ^s from dirt, rubbish or decayed animal or vegetable matter	2	2
45. Cow beds are clean, dry and no horses manure used thereon.	2	2
46. Manure is removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0.	4	4
47. Liquid matter is not allowed to saturate ground under or around cow barn	2	2
48. Milking stools are not clean	1	0
49. Cows have not been tuberculin tested and all tuberculous cows removed	7	0
50. Cow yard is clean and free from manure	2	2
51. Cows are all in good flesh and condition at time of inspection	2	2
52. Cows are all free from clinging manure and dirt. (Number dirty)	4	4
53. Long hairs are kept short on belly, flanks, duder and tail	1	1
54. Udder and teats of cows are not thoroughly brushed and wiped with a clean damp cloth before milking	3	0
55. All feed is of good quality and distillery waste or and substance in a state of putrefaction is not fed	2	2
56. Milking is done with dry hands	2	2
57. Fore milk or first few streams from each teat is discarded . .	2	2
58. Clothing of milkers is clean	1	1
59. Facilities for washing hands of milkers are provided in cow barn or milk house	2	2
60. Milk is strained at barn floor and in clean atmosphere	1	1
61. Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1; night's milk only	3	1
62. Ice is used for cooling milk	1	1
63. Milk house is none, free, free from dirt, rubbish and all material not used in the handling and storage of milk	1	0
64. Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solution not at night	2	0
65. Utensils are not sterilized by steam or boiling water after each using	2	0
66. Privy is in sanitary condition, with vault and seats covered and protected	1	1
	<u>60</u>	<u>46</u>

Remarks

Duplicate score received.

Signature refused,

Dairyman.

A. H. MISSILDINE,
Inspector of Foods.

(For reverse side or score card, see page)

File.....

DAIRYMAN'S DUPLICATE SCORE

Equipment	40%	Score 29%
Methods	60%	Score 43%
Perfect Dairy	100%	Score 72%

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of Food Inspection

Dairy Report

- Inspection No. Time. A. P. M. Date, December 20, 1915
1. Dairyman, Seybold, Theo. F. Owner, Same.
 2. P. O. address, Durhamville. P. O. address, State,
 3. County, Oneida. State, New York. Party interviewed, A. Smith
 4. Milk delivered to creamery at State Bridge. Formerly at,
 5. Operated by Levy Dairy Company. Address, 19th street and Avenue 13
 6. Distance of farm from creamery, one-half mile. Occupied since, farm, life.
 7. No. of cows, 19. No. milking, 12. No. quarts produced, 115.
 8. All persons in the households of those engaged in producing or handling milk are free from all infectious disease. Weekly reports are not being filed.
 9. Date and nature of last case on farm.
 10. Water supply for utensils is from a well located at house feet deep, and apparently is pure and wholesome. State any possible contamination located within 200 feet of source of water supply or if water supply is not protected against surface drainage.
 11. Water supply on this farm analyzed. 191. Result.
 12. Style of cow barn: Length, 40 feet. Width, 30 feet. Height of ceiling, 8 feet.
 13. Dairy rules of the Department of Health are posted.
 14. Dairy herd examined by Burleigh on 1915. Report.

EQUIPMENT

	Perfect	Allow
15. Cow stable is located on elevated ground with no stagnant water, no pen privy, uncovered cesspool or manure pit within 100 feet.	1	1
16. Floors, others than cow beds, are of concrete or some non-absorbent material.	2	2
17. Floors are properly graded and water-tight.	2	2
18. Cow beds are of concrete or planks laid on concrete.	2	2
19. Drops are constructed of concrete, stone or some non-absorbent material.	2	2
20. Drops are water-tight and space beneath is clean and dry.	2	2
21. Ceiling is constructed of board and is tight and dust-proof	2	2
22. Windows, number seven; total square feet, 44; there is two square feet of window light for each 600 cubic feet air space (one square foot per each 600 cubic feet, 1)	2	2
23. Ventilation consists of square feet muslin covered openings or 16 square feet open chutes in ceiling or slide windows, which is sufficient, 3; fair, 2; poor, 1; insufficient, 0.	3	2
24. Air space is 500 cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 2) (under 400, 0)	3	2
25. Live stock, other than cows, are excluded from rooms in which milch cows are kept.	2	2
26. There is direct opening from stable into silo or grain pit.	1	1
27. Separate quarters are provided for cows when calving or sick.	1	1
28. Cow yard is properly graded and drained.	2	2
29. Water supply for cows is unpolluted and plentiful.	1	1

	Perfect	Allow
30. Milk house has direct opening into cow barn or other building.....	1	0
31. Milk house has sufficient light and ventilation.....	1	0
32. Floor is properly graded and water-tight.....	1	0
33. Milk house is properly screened to exclude flies.....	1	0
34. Milk pails are of smoothly tinned metal in good repair....	1	1
35. Milk pails have all seams soldered flush.....	2	2
36. Milk pails are not of the small mouthed design, top opening not exceeding eight inches in diameter. Diameter, 14	2	0
37. Racks are not provided to hold milk pails and cans when not in use.....	1	0
38. Special milking suits are not provided.....	1	0
	<hr/> 40	<hr/> 29

METHODS

39. Stable interior painted or whitewashed on 1915, which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0.....	3	3
40. Feeding troughs, platforms or cribs are well lighted and clean.....	1	1
41. Ceiling is free from hanging straw, dirt or cobwebs.....	3	3
42. Window panes are washed and kept clean.....	1	1
43. Walls and ledges are free from dirt, dust, manure, or cobwebs	2	2
44. Floors and premises are free from dirt, rubbish or decayed animal or vegetable matter.....	2	2
45. Cow beds are clean, dry and no horse manure used thereon	2	2
46. Manure is removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0.....	4	4
47. Liquid matter is not allowed to saturate ground under or around cow barn.....	2	2
48. Milking stools are clean.....	1	1
49. Cows have not been tuberculin tested and all tuberculous cows removed.....	7	0
50. Cow yard is clean and free from manure.....	2	2
51. Cows are all in good flesh and condition at time of inspection	2	2
52. Cows are all free from clinging manure and dirt, (number dirty).....	4	4
53. Long hairs are kept short on belly, flanks, udder and tail	1	1
54. Udder and teats of cows are not thoroughly brushed and wiped with a clean damp cloth before milking.....	3	0
55. All feed is of good quality and distillery waste or any substance in a state of putrefaction is not fed.....	2	2
56. Milking is done with dry hands.....	2	2
57. Fore milk or first few streams from each teat is discarded..	2	2
58. Clothing of milkers is clean.....	1	1
59. Facilities for washing hands of milkers are provided in cow barn or milk house.....	2	2
60. Milk is strained at barn floor, and in clean atmosphere....	1	1
61. Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1.....	3	1
62. Ice is not used for cooling milk.....	1	0
63. Milk house is none, free from dirt, rubbish and all material not used in handling and storage of milk.....	1	0
64. Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solution.....	2	2

	Perfect	Allow
65. Utensils are not sterilized by steam or boiling water after each using	2	0
66. Privy is in sanitary condition, with vault and seats covered and protected	1	1
	<u>60</u>	<u>43</u>

Remarks

Duplicate score received

Guar. to

A. SMITH,
Dairyman.

A. H. MISSILDINE,
Inspector of Foods.

(For reverse side of score card, see page)

DAIRYMAN'S DUPLICATE SCORE

File

Equipment	40%	Score 29%
Methods	60%	Score 44%
Perfect Dairy	100%	Score 73%

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of Food Inspection

Dairy Report

Inspection No. Time A. P. M. Date, March 15, 1915

1. Dairyman, Seybold, Theo. F. Owner, Same.
2. P. O. address, Durhamville. P. O. address, State
3. County, Oneida. State, New York. Party interviewed
4. Milk delivered to creamery at State Bridge. Formerly at
5. Operated by Levy Dairy Company. Address, 19th street and Avenue 13
6. Distance of farm from creamery, one-half mile. Occupied farm since, life.
7. No. of cows, 20. No. milking, No. quarts produced,
8. All persons in the households of those engaged in producing or handling milk are free from all infectious disease. Weekly reports are not being filed.
9. Date and nature of last case on farm
10. Water supply for utensils is from a well located at house feet deep, and apparently is pure and wholesome. State any possible contamination located within 200 feet of source of water supply or if water supply is not protected against surface drainage
11. Water supply on this farm analyzed 191. Result
12. Style of cow barn: Length, 40 feet. Width, 30 feet. Height of ceiling, 8 feet.
13. Dairy rules of the Department of Health are posted.
14. Dairy herd examined by on 191. Report

EQUIPMENT

Perfect Allow

- | | | |
|---|---|---|
| 15. Cow stable is located on elevated ground with no stagnant water, hog-pen, privy, uncovered cesspool or manure pit within 100 feet | 1 | 1 |
| 16. Floors, others than cow beds, are of concrete or some non-absorbent material | 2 | 2 |
| 17. Floors are properly graded and water-tight | 2 | 2 |
| 18. Cow beds are of concrete or planks laid on concrete | 2 | 2 |
| 19. Drops are constructed of concrete, stone or some non-absorbent material | 2 | 2 |

	Perfect	Allow
20. Drops are water-tight and space beneath is clean and dry.	2	2
21. Ceiling is constructed of board and is tight and dust-proof	2	2
22. Windows, number seven; total square feet, 45; there is two square feet of window light for each 600 cubic feet air space (one square foot per each 600 cubic feet, 1)	2	2
23. Ventilation consists of 4 square feet muslin covered openings of 16 square feet open chutes in ceiling or slide windows, which is sufficient, 3; fair, 2; poor, 1; insufficient, 0	3	2
24. Air space is 500 cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 1) (under 400, 0)	3	2
25. Live stock, other than cows, are excluded from rooms in which milch cows are kept	2	2
26. There is (2) direct opening from stable into silo or grain pit	1	1
27. Separate quarters are provided for cows when calving or sick	1	1
28. Cow yard is properly graded and drained	2	2
29. Water supply for cows is unpolluted and plentiful	1	1
30. Milk house has direct opening into cow barn or other building	1	0
31. Milk house has sufficient light and ventilation	1	0
32. Floor is properly graded and water-tight	1	0
33. Milk house is properly screened to exclude flies	1	0
34. Milk pails are of smoothly tinned metal in good repair	1	1
35. Milk pails have all seams soldered flush	2	2
36. Milk pails are not of the small mouthed design, top opening not exceeding eight inches in diameter. Diameter, 11	2	0
37. Racks are not provided to hold milk pails and cans when not in use	2	0
38. Special milking suits are not provided	1	0
	<u>40</u>	<u>29</u>

METHODS

	Perfect	Allow
39. Stable interior painted or whitewashed on 1915, which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0	3	3
40. Feeding troughs, platforms or cribs are well lighted and clean	1	1
41. Ceiling is free from hanging straw, dirt or cobwebs	3	3
42. Window panes are washed and kept clean	1	1
43. Walls and ledges are free from dirt, dust, manure, or cobwebs	2	2
44. Floors and premises are free from dirt, rubbish or decayed animal or vegetable matter	2	2
45. Cow beds are clean, dry and no horse manure used thereon	2	2
46. Manure is removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0	4	4
47. Liquid matter is not allowed to saturate ground under or around cow barn	2	2
48. Milking stools are not clean	1	0
49. Cow yard is clean and free from manure	2	2
50. Cows have not been tuberculin tested and all tuberculous cows removed	7	0
51. Cows are all in good flesh and condition at time of inspection	2	2
52. Cows are all free from clinging manure and dirt, (number dirty)	4	4
53. Long hairs are kept short on belly, flanks, udder and tail	1	1
54. Udder and teats of cows are not thoroughly brushed and wiped with a clean damp cloth before milking	3	0
55. All feed is of good quality and distillery waste or any substance in a state of putrefaction is not fed	2	2

	Perfect	Allow
56. Milking is done with dry hands.....	2	2
57. Fore milk or first few streams from each teat is discarded...	2	2
58. Clothing of milkers is clean.....	1	1
59. Facilities for washing hands of milkers are provided in cow barn or milk house.....	2	2
60. Milk is strained at barn floor, and in clean atmosphere....	1	1
61. Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1.....	3	1
62. Ice is used for cooling milk.....	1	1
63. Milk house is none, free from dirt, rubbish and all material not used in handling and storage of milk.....	1	0
64. Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solu- tion.....	2	2
65. Utensils are not sterilized by steam or boiling water after each using.....	2	0
66. Privy is in sanitary condition, with vault and seats covered and protected.....	1	1
	<u>60</u>	<u>43</u>

Remarks.....

Duplicate score received.....

.....

Dairyman.

A. H. MISSILDINE,
Inspector of Foods.

(For reverse side of score card, see page.....)

The dairymen complained that the foregoing score cards were not just. The attitude of the Department of Health towards this complaint is best shown perhaps by a letter from the department, produced by Mr. Seybold, and marked Exhibit 134.

EXHIBIT NO. 134.

DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK

BUREAU OF FOOD AND DRUGS

Centre and Walker Streets, Borough of Manhattan

LUCIUS P. BROWN, *Director*.

NEW YORK, July 22nd, 1916.

Mr. Theodore F. Seybold, *Durhamville, N. Y.*

Dear Sir.—Replying to your communication of July 16th, I wish to inform you that dairies drawing milk to pasteurizing plants which ship Grade A pasteurized milk to this city are only scored three times annually by this department unless circumstances require more frequent inspections. However, in your particular case Mr. Missildine will be instructed to make a reinspection as soon as possible and convenient but it may be two or three weeks before he will be able to do this work.

Respectfully,

(Signed) LUCIUS P. BROWN,
Director.

EFFECT OF PASTEURIZATION ON DAIRY INSPECTION

Since the adoption of the rule of uniform pasteurization, the city has lessened the number of farm dairy inspectors and the city department has confined its operations more exclusively to the shipping station and pasteurizing plants, leaving the dairy inspection to be done by the employees of the milk station; requiring the score cards to be kept at the station where they could be examined and supervised by the city inspector when he examined the station. An example of the station work in this particular is afforded by the following score card:

BORDEN'S CONDENSED MILK COMPANY.

Veterinary and Sanitary Inspection

Farm operated by:

Owner.....

Lessee.....

Branch, Cherry Valley...

Dairyman, C. Steinburgh.

Cows

{ Milking...21

{ Dry.....

{ Native.....

{ Holstein...17

{ Jersey....4

Date of examination.....

Veterinarian.....

Inspector, R. B. Wainwright.

EQUIPMENT

	Perfect	Allow
Cow stable is located on elevated ground with no stagnant water, hog-pen, privy, uncovered cesspool or manure pit within 100 feet.....	1	1
Floors, other than cow beds, are of concrete or some non-absorbent material.....	2	2
Floors are properly graded and water-tight.....	2	2
Cow beds are of concrete or planks laid on concrete.....	2	2
Drops are constructed of concrete, stone or some non-absorbent material.....	2	2
Drops are water-tight and space beneath is clean and dry.....	2	2
Ceiling is constructed of and is tight and dust-proof	2	2
Windows number.....total square feet; there is two square feet of window light for each 600 cubic feet air space (one square foot per each 600 cubic feet, 1).....	2	2
Ventilation consists of .....square feet muslin covered openings or .....square feet open chutes in ceiling or..... which is sufficient, 3; fair, 2; poor, 1; insufficient, 0.....	3	2
Air space is .....cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 1) (under 400, 0).....	3	3
Live stock, other than cows, are excluded from rooms in which milch cows are kept.....	2	2
There is direct opening from stable into silo or grain pit.....	1	1
Separate quarters are provided for cows when calving or sick...	1	1
Cow yard is properly graded and drained.....	2	2
Water supply for cows is unpolluted and plentiful.....	1	1
Milk house has direct opening into cow barn or other building..	1	1
Milk house has sufficient light and ventilation.....	1	1
Floor is properly graded and water-tight.....	1	1
Milk house is properly screened to exclude flies.....	1	1
Milk pails are of smoothly tinned metal in good repair.....	1	1

	Perfect	Allow
Milk pails have all seams soldered flush	2	2
Milk pails are of the small mouth design, top opening not exceeding eight inches in diameter. Diameter	2	....
Racks are provided to hold milk pails and cans when not in use . .	2	2
Special milking suits are provided	1	....
	<u>40</u>	<u>36</u>

METHODS

	Perfect	Allow
Stable interior painted or whitewashed on which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0	3	2
Feeding troughs, platforms or cribs are well lighted and clean . .	1	1
Ceiling is free from hanging straw, dirt or cobwebs	3	3
Window panes are washed and kept clean	1	1
Walls and ledges are free from dirt, dust, manure and cobwebs .	2	2
Floors and premises are free from dirt, rubbish or decayed animal or vegetable matter	2	2
Cow beds are clean, dry and no horse manure used thereon . . .	2	2
Manure is removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0 . .	4	4
Liquid matter is allowed to saturate ground under and around cow barn	2	2
Milking stools are clean	1	1
Cow yard is clean and free from manure	2	2
Cows have been tuberculin tested and all tuberculous cows removed	7	....
Cows are all in good flesh and condition at time of inspection . .	2	2
Cows are all free from clinging manure and dirt. (Number dirty)	4	4
Long hairs are kept short on belly, flanks, udder and tail	1	1
Udder and teats of cows are thoroughly brushed and wiped clean clean damp cloth before milking	3	3
All feed is of good quality and distillery waste or any substance in a state of putrefaction is fed	2	2
Milking is done with dry hands	2	2
Fore milk or first few streams from each teat is discarded	2	2
Clothing of milkers is clean	1	1
Facilities for washing hands of milkers are provided in cow barn or milk house	2	2
Milk is strained at and in clean atmosphere	1	1
Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1	3	3
Ice is used for cooling milk	1	1
Milk house is free from dirt, rubbish and all material not used in the handling and storage of milk	1	1
Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solution	2	2
Utensils are sterilized by steam or boiling water after each using	2	....
Privy is in sanitary condition, with vault and seats covered and protected	1	....
	<u>40</u>	<u>49</u>
Total score	<u>100</u>	<u>85</u>

Remarks

Branch: Cherry Valley.

Dairyman, C. STEINBURGH.

An inspection of the same farm by a city inspector in the following year is shown by the following score card:

DAIRYMEN'S DUPLICATE SCORE

Equipment	40%	Score 31%
Methods	60%	Score 29%
Perfect Dairy	100%	Score 60%

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of Food Inspection

Dairy report

Inspection No. Time. A. P. M. Date, August 28, 1916

1. Dairyman, A. S. Steenburgh. Owner, C. Steenburgh.
2. P. O. address, Cherry Valley. P. O. address. State.
3. County, Otsego. State, New York. Party interviewed, C. Steenburgh.
4. Milk delivered to creamery at, Cherry Valley. Formerly at.
5. Operated by Borden's. Address, New York City.
6. Distance of farm from creamery. Occupied farm since, 4 years.
7. Number cows, 24. Number milking, 20. Number quarts produced, 180.
8. All persons in the households of those engaged in producing or handling milk are free from all infectious disease. Weekly reports are none, being filed.
9. Date and nature of last case on farm, none.
10. Water supply for utensils is from a drill well located, feet deep and apparently is pure and wholesome. State any possible contamination located within 200 feet of source of water supply or if water supply is not protected against surface drainage.
11. Water supply on this farm analyzed. 191. Result.
12. Style of cow barn: Length, 70 feet; width, 32 feet; height of ceiling, 7 feet.
13. Dairy rules of the department are posted.
14. Dairy herd examined by. on. 191. Report filed.

	Perfect	Allow
15. Cow stable is not located on elevated ground with no stagnant water, hog-pen, privy, uncovered cesspool of manure pit within 100 feet.	1	0
16. Floors, other than cow beds, are of concrete or some non-absorbent material.	2	2
17. Floors are properly graded and water-tight.	2	2
18. Cow beds are of concrete or planks laid on concrete.	2	2
19. Drops are constructed of concrete, stone or some non-absorbent material.	2	2
20. Drops are water-tight and space beneath is clean and dry.	2	2
21. Ceiling is constructed of wood and is not tight and dust-proof.	2	0
22. Windows Number 14; total square feet, 6; there is 2 square feet of window light for each 600 cubic feet air space (1 square foot per each 600 cubic feet, 1)	2	2
23. Ventilation consists of square feet muslin covered openings or 12 square feet open chutes in ceiling or. which is sufficient, 3; fair, 2; or poor, 1; insufficient, 0.	3	1
24. Air space is 600 cubic feet per cow (600 and over, 3) (500 to 600, 2) (400 to 500, 1) (under 400, 0)	3	3
25. Live stock, other than cows, are excluded from rooms in which milch cows are kept.	2	2
26. There is no direct opening from stable into silo or grain pit	1	1
27. Separate quarters are provided for cows when calving or sick	1	1
28. Cow yard is properly graded and drained.	2	2
29. Water supply for cows is unpolluted and plentiful.	1	1
30. Milk house has no direct opening into cow barn or other building.	1	1

	Perfect	Allow
31. Milk house has sufficient light and ventilation.....	1	1
32. Floor is properly graded and water-tight.....	1	1
33. Milk house is not properly screened to exclude flies.....	1	0
34. Milk pails are of smoothly tinned metal in good repair....	1	1
35. Milk pails have all seams soldered flush.....	2	2
36. Milk pails are not of the small mouthed design, top opening not exceeding eight inches in diameter. Diameter, 1....	2	0
37. Racks are provided to hold milk pails and cans when not in use.....	2	2
38. Special milking suits are not provided.....	1	0
	<hr/> 40	<hr/> 31

METHODS

39. Stable interior painted or whitewashed on, not lately, which is satisfactory, 3; fair, 2; unsatisfactory, 1; never, 0.....	3	2
40. Feeding troughs, platforms or cribs are well lighted and clean.....	1	1
41. Ceiling is not free from hanging straw, dirt or cobwebs....	3	0
42. Window panes are not washed and kept clean.....	1	0
43. Walls and ledges are not free from dirt, dust, manure or cobwebs.....	2	0
44. Floors and premises are not free from dirt, rubbish or de- cayed animal or vegetable matter.....	2	0
45. Cow beds are not clean, dry and no horse manure used thereon.....	2	0
46. Manure is not removed to field daily, 4; to at least 100 feet from barn, 2; stored less than 100 feet or where cows can get at it, 0.....	4	0
47. Liquid matter is not allowed to saturate ground under or around cow barn.....	2	2
48. Milking stools are not clean.....	1	0
49. Cow yard is clean and free from manure.....	2	2
50. Cows have not been tuberculin tested and all tuberculous cows removed.....	7	0
51. Cows are all in good flesh and condition at time of inspection	2	2
52. Cows are all free from clinging manure and dirt. (Number dirty).....	4	4
53. Long hairs are not lately kept short on belly, flanks, udder and tail.....	1	0
54. Udder and teats of cows are not thoroughly brushed and wiped with a clean damp cloth before milking.....	3	0
55. All feed is of good quality and distillery waste or any sub- stance in state of putrefaction is not fed.....	2	2
56. Milking is done with dry hands.....	2	2
57. Fore milk or first few streams from each teat is discarded..	2	2
58. Clothing of milkers is clean.....	1	1
59. Facilities for washing hands of milkers are provided in cow barn or milk house.....	2	2
60. Milk is strained at and in clean atmosphere.....	1	1
61. Milk is cooled within two hours after milking to 50 degrees F., 3; to 55 degrees F., 2; to 60 degrees F., 1.....	3	1
62. Ice is used for cooling milk.....	1	1
63. Milk house is free from dirt, rubbish and all material not used in the handling and storage of milk.....	1	1
64. Milk utensils are rinsed with cold water immediately after using and washed clean with hot water and washing solution.....	2	2

65. Utensils are not sterilized by steam or boiling water after each using	2	0
66. Privy is in sanitary condition, with vault and seats covered and protected	1	1
	<u>60</u>	<u>29</u>

Remarks, C. Steenburgh.

Duplicate score received

Dairyman.

Inspector of Foods.

INSPECTION OF MILK GATHERING STATIONS AND PASTEURIZING PLANTS

Under the present mode of operation of the City Department of Health, the inspection of pasteurizing plants and equipment in milk gathering stations is rigid and constant. The condition of the milk received at these plants and handled by them is constantly checked by the bacterial count and sediment test. The form of score card of the stations is as follows, although many other preliminary forms are used:

55 F-1912

	File		
Construction	50	%	%
Operation	50	%	%
Perfect score	100	%	%

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK

Division of milk inspection. Creamery report
 File No. Inspection No. Time. A. P. M. 191..
 Location P. O. address.
 County State.
 On R. R. Branch. Miles to New York.
 Owner. Address.
 Operator. Address.
 Manager. is licensed by. State. Number of help.
 Number of patrons delivering at present. Total number of patrons.
 Milk received daily ... pounds. Quart cans. Average butter fat test. ... Date. ...
 Milk train leaves daily at. Arrives at platform New York City at. A. P. M.
 Butter, cheese, casein or milk sugar are made in building.
 Water supply is from.
 And is apparently pure and wholesome. Milk is delivered by farmers at least once daily.
 All cans and bottles of milk are tagged, showing date and place of shipment.
 All persons engaged in handling milk are free from any infectious disease.
 Infectious disease reports from dairyman are filed as follows:

Date.	Number of patrons.	Number of reports filed.
Date.	Number of patrons.	Number of reports filed.
Date.	Number of patrons.	Number of reports filed.
Date.	Number of patrons.	Number of reports filed.

SHIPMENTS TO CUSTOMERS

Name	Address	Cans milk, cream
Name	Address	Cans milk, cream
Name	Address	Cans milk, cream

If not shipping at present, state disposal of milk or cream

CONSTRUCTION

	Perfect Score	Allowed
1. Premises surrounding creamery are in sanitary condition...	1	....
2. Receiving room is partitioned off from main milkroom....	2	....
3. Wash room for cans and utensils is separated from where milk is handled.....	1	....
4. Ventilators are installed to carry steam and odors to the out- side air	1	....
5. Milk handling room is well lighted by windows	2	....
6. Walls and ceiling are sheathed and dust-tight	2	....
7. Were painted on..... which is satisfactory	1	....
8. Floors are made of concrete, stone, or some non-absorbent material	5	....
9. Are water tight	2	....
10. Are so graded that all drainage is discharged at one or more points	2	....
11. Strainers in floors are at least six inches in diameter.....	1	....
12. Space beneath creamery is dry	3	....
13. Drains are of earthenware or iron	2	....
14. Are water-tight	2	....
15. Are continuous from the floor level to point of disposal	2	....
16. Are protected against freezing	1	....
17. Drainage is disposed of as follows: (land disposal, 500 feet) which is satisfactory	5	....
18. All steam and water pipes are painted and clean	1	....
19. Cooling tanks are water-tight	2	....
20. Are made of some non-absorbent material	1	....
21. Are supplied with clean water or filled with clean ice	1	....
22. Running water supply, ample for the needs of the creamery, is provided	5	....
23. Privy is located, which is satisfactory	2	....
24. Privy is in a sanitary condition, with vaults and seats, cov- ered and protected	1	....
25. Living quarters are not located in creamery building	2	....
	<hr/> 50	<hr/>

OPERATION

26. Weigh vats are covered when in use	1	....
27. All milk is properly strained through clean strainers	2	....
28. Milk handling room is used exclusively for handling milk ..	2	....
29. Floors are free from dirt, rubbish or pools of drainage	2	....
30. All ledges are clean and free from dust and dirt	2	....
31. Milk pumps for milk can be readily taken apart	2	....
32. Are thoroughly cleaned daily	2	....
33. Milk-holding vats are of smooth-surfaced tin	1	....
34. Milk vats are provided with covers when in use	1	....
35. Milk vats are in good repair	1	....
36. All tin joints are soldered flush	1	....
37. Are thoroughly cleaned immediately after use	2	....
38. Milk cans are in good condition, free from rust and worn spots	1	....
39. Cans and bottles from city are returned rinsed and free from and dirt	1	....

	Perfect score	Allowed
40. Farmers' cans are rinsed and then washed with hot water and washing solution before being returned.....	1	....
41. Skim milk is carted back to farm in cans other than those used for whole milk.....	1	....
42. City milk cans and bottles are thoroughly soaked and rinsed before washing.....	1	....
43. Are washed with hot water and washing solution.....	2	....
44. Are rinsed out with clean water.....	1	....
45. Are exposed to live steam for at least one minute, pounds pressure in steam pipes.....	2	....
46. Milk is received at a temperature below 60 degrees F.....	3	....
47. Milk is immediately cooled to below 50 degrees F.....	3	....
48. Milk is protected from dust and dirt while in pools.....	2	....
49. Milk is protected in handling, mixing or over aerators.....	2	....
50. Attendants are cleanly in handling milk or utensils.....	2	....
51. Garments worn by such employees are clean.....	1	....
52. Spitting or smoking in creamery building is prohibited.....	2	....
53. Building is fitted with fly screens during the summer months.....	2	....
54. Department of health rules are posted.....	1	....
55. Dairy farms are inspected by operator's representative at least once a month.....	3	....
	<hr/> 50 <hr/>	<hr/> <hr/>

Remarks.....

Inspector of Foods.

(Reverse side of score card)

COMPLETE LIST OF PATRONS

1	31	61	91
2	32	62	92
3	33	63	93
4	34	64	94
5	35	65	95
6	36	66	96
7	37	67	97
8	38	68	98
9	39	69	99
10	40	70	100
11	41	71	101
12	42	72	102
13	43	73	103
14	44	74	104
15	45	75	105
16	46	76	106
17	47	77	107
18	48	78	108
19	49	79	109
20	50	80	110
21	51	81	111
22	52	82	112
23	53	83	113
24	54	84	114
25	55	85	115
26	56	86	116
27	57	87	117
28	58	88	118
29	59	89	119
30	60	90	120

These requirements and inspections are a source of considerable annoyance and irritation to dairymen's cooperative plants built and equipped to handle milk for the New York market. The first problem of such a company is to build and equip their station to meet the requirements of the department. The second is to maintain it so that the milk shall at all times be permitted entry into the city. As has been above suggested in this report, if the dairymen and distributors are to encourage the consumption of milk, it is more to their interest to satisfy the consumer that the product is healthful and wholesome than it is to the Department of Health. Increased consumption is of direct benefit to the dairyman. This increased consumption can only be assured if the consumer is satisfied that the product is entirely safe. But above and beyond that, it is of the utmost importance to the dairymen of the State of New York that both the consumers and the Department of Health of the city look to the *dairy farmers and milk stations in the State of New York* as the only sure and safe source of supply for market milk and as the only source that is properly equipped to afford them the desired quality of market milk. In that event, our farmers have a virtual monopoly of the New York market. Therefore, it is both advisable and necessary that the dairymen of the State work in complete harmony with the health officials of the various cities to attain these desired ends.

OTHER CITIES' SCORING METHODS

Under the supervision of the State Department of Health, the boards of health of various other cities of the State have adopted scoring and inspection methods. Buffalo, Rochester, Syracuse, Utica, Watertown, Binghamton, Geneva, and others, have their own and more or less varying methods. Exhibit 87, shows one of the city's score cards.

EXHIBIT NO. 87

Form No.
 District No.

NEW YORK STATE DEPARTMENT OF HEALTH, ALBANY

Board of Health of the City of Watertown, N. Y.

OFFICIAL STATE DAIRY SCORE CARD

(Indorsed by the Official Dairy Instructors' Association. Subject to revision at future meetings.)

Owner or lessee of farm
 P. O. address County
 Total number of cows Number milking Gallons of
 milk produced daily
 Product is sold by producer in families, hotels, restaurants, stores, to
 For milk supply of
 Permit No. Date of inspection
 Remarks

Cows		EQUIPMENT	Score	Perfect	Allowed
Health			6	....	....
Apparently in good health	1		....	....	....
* If tested with tuberculin within a year and no tuberculosis is found, or if tested within six months and all reacting animals removed	5		..	....	....
(If tested within a year and reacting animals are found and removed, 3.)					
Food (clean and wholesome)			1	....	....
Water (clean and fresh)			1	....	....
Stables					
Location of stable			2	....	....
Well drained	1		....	....	....
Free from contaminating surroundings	1		....	....	....
Construction of stable			4	....	....
Tight, sound floor and proper gutter	2		....	....	....
Smooth, tight walls and ceiling	1		....	....	....
Proper stall, tie and manger	1		....	....	....
Provision for light; four square feet of glass per cow.. (Three square feet, 3; 2 square feet, 2; 1 square foot, 1. Deduct for uneven distribution.)			4	....	....
Bedding			1	....	....
Ventilation			7	....	....
Provision for fresh air controllable flue system.... (Windows hinged at bottom, 1.5; sliding windows, 1; other openings, 0.5.)	3		....	....	....
Cubic feet of space per cow, 500 feet	3		....	....	....
(Less than 500 feet, 2; less than 400 feet, 1; less than 300 feet, 0.)					
Provision for controlling temperature	1		....	....	....
Utensils					
Construction and conditions of utensils			1	....	....
Water for cleaning			1	....	....
(Clean, convenient, and abundant.)					
Small-top milking pail			5	....	....
Milk cooler			1	....	....
Clean milking suits			1	....	....

	Score	
	Perfect	Allowek
Milk Room or Milk House		
Location, free from contaminating surroundings	1	....
Construction of milk room	2	....
Floors, walls and ceiling	1	....
Light, ventilation, screens	1	....
Separate rooms for washing utensils and handling milk	1	....
Facilities for steam	1	....
(Hot water, 0.5.)		
Total	40	....

METHODS

Cows		
Clean	8	....
(Free from visible dirt, 6.)		
Stables		
Cleanliness of stables	6	....
Floor	2	....
Walls	1	....
Ceiling and ledges	1	....
Mangers and partitions	1	....
Windows	1	....
Stables air at milking time	5	....
Freedom from dust	3	....
Freedom from odors	2	....
Cleanliness of bedding	1	....
Barnyard	2	....
Clean	1	....
Well drained	1	....
Removal of manure daily to 50 feet from stables	2

Milk Room or Milk House

Cleanliness of milk room	3
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Utensils and Milking

Care and cleanliness of utensils	8
Thoroughly washed	2
Sterilized in steam for 15 minutes	3	....
(Placed over steam jet, or scalded with boiling water, 2.)		
Protected from contamination	3	....
Cleanliness of milking	9	....
Clean, dry hands	3	....
Udders washed and wiped	6	....
(Udders cleaned with moist cloth, 4; cleaned with dry cloth or brush at least 15 minutes before milking, 1.)		

Handling the Milk

Cleanliness of attendants in milk room	2	....
Milk removed immediately from stable without pouring from pail	2	....
Cooled immediately after milking each cow	2	....
Cooled below 50 degrees F	5	....
(51 degrees to 55 degrees, 4; 56 degrees to 60 degrees, 2.)		

	Score	
	Perfect	Allowed
Stored below 50 degrees F.	3	....
(51 degrees to 55 degrees, 2; 56 to 60 degrees, 1.)		
Transportation below 50 degrees F.	2	....
(51 degrees to 55 degrees, 1.5; 56 degrees to 60 degrees, 1.)		
(If delivered twice a day, allow perfect score for storage and transportation.)		
Total.	60	....

Equipment } methods=final score.

Note 1.—If any exceptionally filthy condition is found particularly dirty utensils, the total score may be further limited.

Note 2.—If the water is exposed to dangerous contamination, or there is evidence of the presence of a dangerous disease in animals or attendant, the score shall be 0.

* Alternate. If pastuerized by holding process according to the Sanitary Code, Chapter III, Reg. 12; score, 5.

.....Inspector.

CONFUSION OF METHODS

This situation brings into the field various city inspectors covering the same dairy section with confusing and various regulations for the dairymen to follow. When a dairyman has adapted himself to the Rochester score card, in mid season, perhaps, he desires to change and comes under the different scoring system if he desires to sell milk either in Buffalo or New York city. Duplicate inspection covers the same territory, all at the expense of the people of the State.

CONCLUSION

A competent Board of Agriculture and Foods should take over all the work of inspecting and scoring dairy barns. No valid reason can be given why milk that is condensed as unfit for the New York or Rochester market should be sold in the village of 2,500 or 3,000 people, which perhaps pays less attention to the sanitary condition of the milk furnished its inhabitants.

Neither should it be made into cheese. If it is poorly cared for and inferior, it only results in a poor product in the cheese factory and a lower price. Other and more careful dairymen suffer. Thus it would appear that the State should aid and assist in the work of supervising the conditions under which milk is produced to the end that milk that goes into food to be sold on the market is

as nearly as possible of a uniform grade as to cleanliness and fit and wholesome for food in any city or town, whether offered in the way of market milk or as cheese, or even butter. To accomplish this result, it is necessary that the health authorities of the State agree on what should constitute sanitary conditions and work with a State department towards securing that standard of producing methods.

When this standard is reached and maintained, the State department can certify to the condition of any dairy farm and that certificate and that inspection should open to the dairyman every milk market in the State. This does not mean in the end any greater expense than the taxpayers are now put to in the present disorganized condition of affairs. The number of men now engaged in this work and paid by the taxpayers could do the work equally as effective as it is now done and probably more effectively with a single head and a single system. The saving to be accomplished would provide even better and more extended work. The dairymen in Chautauqua county would be under the same regulation as the dairymen in St. Lawrence county, and possible causes of misunderstanding and harsh feeling removed. The difficulty with this proposition is to convince the city health authorities that the State department would seriously and thoroughly do the work and would maintain a serious and proper standard for the production of sanitary milk. That problem is not peculiar, however, to milk alone. It applies equally to drugs and foods of all kinds. But the fear on the part of the city consumer and city health authorities is more pronounced in regard to milk because of the ease of contamination and the facility and frequency with which ill-cared for milk becomes a carrier of disease. It requires a more rigorous and careful inspection than other food products because of this quality, and if this desired end is to be attained, the equipment and administration of this Department of State food supervision must be at least equal to that now maintained by the most careful city. The consumers and health departments in those cities must be satisfied that the administrative machinery and personnel of the proposed State department will accomplish the desired ends.

VALUE OF BARN SCORE

That a high barn score does not ensure pure milk has been abundantly established and is beyond dispute. Low scores do not mean bad milk. High scores do not mean good milk. No man acquainted with the subject has ever contended that the quality of the milk was dependent upon the barn score, but in the absence of other means of determining the quality of the milk furnished by a given dairy farm the barn score did become an index of what might be expected or did furnish a means by which conditions could be watched and recorded and an effort made for improvement. That was all that the barn score was intended to accomplish, and when the dairyman once understands that general proposition he will no longer insist "the barn score is of no value to me as an individual producer in determining the value of my milk; I make clean milk." The barn score was to apply not to the careful individual, but as a record of the whole field of supply where its conclusions might be a general indication and help for the general improvement.

The New York Agricultural Experiment Station at Geneva, led probably by discussion of these questions, undertook to examine into the value of the barn score card and checked up the score cards by the bacterial test of quality. They showed by these tests that a barn score of 56 produced milk with a bacterial count below 15,000; while a barn with a score of 73 produced milk with a bacterial count of over 600,000, and one with a score of 79 produced milk with a bacterial count of 4,000,000. The results of the Experiment Farm studies are given in Bulletin No. 398 of the Agricultural Experiment Station, and as the question is important, we include an extract from that bulletin with this report in order that the conclusions reached may be gathered in one report. These tables also show interesting variation in barn score allowances by different agencies.

NEW USE FOR SCORE CARDS

As a convenience in making comparisons, either in the same dairy at different time, or between different dairies, the cards proved very useful and they soon became known to all students of dairying and dairy inspectors. Their common use as a guide in checking up conditions gradually led to a belief that the cards really measure the effect of these conditions on the milk—a

function not at all in the minds of those who first designed the system of scoring. But with the increasing demand for pure market milk and with the absence of ready, reliable measures of milk quality, the cards acquire the reputation of indexes to quality; and in some cases, indeed, they have been officially adopted as the one means of distinguishing between good milk and poor milk. That is, in some markets, the product of any dairy that does not score above a certain mark on a certain card is excluded from sale or given a low grade.

Is this use of dairy score cards justified? Investigations made at this station prove that it is not.

Cards Disagree

In the first place, the cards now in common use in this State do not agree, either in the number of factors to be considered or the relative weight they give to those used. In consequence, the use of different cards, simultaneously, in scoring a series of dairies results in very dissimilar ranking of the milk produced by the various herds; and some cards might exclude from market, milk well above the limit by the scoring of other cards.

This was shown very plainly when thirty-four dairies furnishing milk to a small city were scored by one of the station bacteriologists, using three different cards for each dairy. These cards were: (1) that adopted by the Health Department of New York City; (2) the "Official" card used by the Dairy Division of the U. S. Department of Agriculture, endorsed by the Official Dairy Instructors' Association and adopted with slight modification by the New York State Board of Health; and (3) the card used by the Dairy Department of the New York State College of Agriculture, known as the Cornell card.

Before making these scorings the investigator familiarized himself thoroughly with the method of use of each of the cards, by scoring many dairies by each system when accompanied by one who was accustomed to the use of the particular card.

The results are best conveyed in the form of a diagram (pages 6 and 7) which shows the rank of each dairy on the three cards. The horizontal lines in this graph represent the average minimum score for each grade of milk established by the regulations of the New York State and New York City Boards of Health.

It is evident from this graph that the Cornell card is the most lenient. This is shown by the fact that of the 34 dairies, the total scores of 29 were high enough to entitle them to produce Grade A or Grade B milk, while according to the scores on the Official card only 16 dairies were entitled to this privilege, and only 5 according to the scores on the New York City card. The Cornell card rates only 5 dairies as Grade C, while 18 are thus rated on the Official card and 14 on the New York City card. None of the dairies scored below the exclusion point on either the Cornell or the Official card, while 15 dairies scored below this point on the New York City card.

It is further evident that there is little agreement between the scores obtained by the three cards when applied to the same conditions. In this investigation, however, there was an agreement among the three cards as to the three dairies which would be considered the best from the standpoint of scores. These dairies occupied the same relative position on each card. Beyond this there were instances of wide variations. The scores obtained by the Official

card and the Cornell card agreed as to the poorest scoring dairy, while there was a slight variation in the rating of this particular dairy on the New York City card. As will be seen from this graph, however, the variations between the scores on the Official card and the Cornell card are not so great as between the New York City card and either of the other two. The greatest variation found is in the case of Farm 27 which scores at the foot of the list on the New York City card but scores 32 points higher on the Official card, rating fifth from the top, while the score on the Cornell card is 5.4 points higher than that of the Official card and is 37.4 points higher than that of the New York City card, and rates thirteenth from the top.

It should be kept in mind that these comparative scores are discussed in this paper with reference to the interpretation gained by the investigator while working with inspectors trained in the application of the respective cards. Since different interpretations exist, it is quite probable that other systems of cuts than those used would give somewhat different results. It may be that both the New York City and Official cards could be so interpreted that the results secured would compare closely. This tendency to vary the interpretations put upon the cards is one of the weaknesses of all of the present score cards as a means of grading milk, which has been generally recognized.

The disagreements between the ranking of the different dairies by the score card system and by this bacterial test of quality are many and extreme. In the graph given on pages 6 and 7 the numbers at the head of the columns give the order of the dairies on the basis of the bacteria count of the evening milk, of which samples were always taken, and which gives a better index to the condition of the milk when it reaches the consumer than would samples of the morning milk alone.

Milk from the first dairy gave an average bacteria count of less than 10,000 per cubic centimeter, placing it with highest grade milk so far as the bacteria count is concerned; but this milk would have been *denied entrance* to the New York City market, since the rating of the dairy on the score card placed it below the minimum for Grade C milk. Its rating on the other cards was better, yet only good enough to allow the milk to be sold as Grade B pasteurized; Dairy 2 was scored just high enough on the City card to allow sale of the milk as Grade C and only a little better on the other cards; yet the "bacteria count" was only 55,000. In score on each of the cards this dairy was only about 5 per cent. above Dairy 34, of which the count indicated one thousand times as much bacterial contamination. Only two of the 34 dairies would have satisfied the requirements as to total score for selling Grade A milk and only three others those for Grade B milk, while nearly half of the dairies would have been forbidden to sell milk in New York City in any form; yet the "bacteria count" indicates that the milk from Dairies 1 and 2 was Grade A raw and that from Dairies 3 to 8 Grade A pasteurized.

These figures show startling illustrations of the expansion of good milk by score card rating; and equally marked examples can be given of the acceptance, by dairy scoring, of very poor milk, bacteriologically considered.

TABLE I

A COMPARISON BETWEEN THE BACTERIA COUNT OF NIGHT MILK AND THE DAIRY SCORES OF THIRTY-FOUR FARMS

FARM NUMBER	PLATE COUNT PER C. C.		NEW YORK CITY SCORE		OFFICIAL SCORE		CORNELL SCORE
	P. M. milk	A. M. milk	Total	Methods	Total	Methods	Total
1.....	7,580	13,000	34	20	56.90	36.35	430 M
2.....	54,000	57,000	43	28	53.65	36.50	446 M
3.....	98,000	.....	41	25	54.90	35.20	432 M
4.....	102,000	29,000	45	25	56.60	33.90	439 M
5.....	118,000	52,000	36	21	49.00	28.45	428 M
6.....	138,000	21,000	36	22	53.85	33.85	437 M
7.....	148,000	34,000	29	26	49.45	29.15	433 M
8.....	162,000	18,000	18	15	51.35	31.55	430 M
9.....	267,000	99,000	35	21	56.30	34.40	433 M
10.....	300,000	.....	31	19	45.95	29.10	401 M
11.....	313,000	.....	53	24	57.20	36.35	432 M
12.....	380,000	.....	39	22	54.15	31.75	416 M
13.....	537,000	907,000	57	30	55.70	31.90	442 M
14.....	538,000	165,000	35	18	50.10	32.15	422 M
15.....	570,000	610,000	45	22	78.90	29.05	435 M
16.....	687,000	58,000	73	41	73.08	38.63	469 G
17.....	732,000	.....	38	20	50.45	29.25	436 M
18.....	762,000	320,000	58	29	66.10	37.20	455 G
19.....	777,000	13,000	47	29	58.65	34.10	450 G
20.....	812,000	67,000	53	29	57.35	34.40	442 M
21.....	937,000	153,000	40	22	50.05	28.65	429 M
22.....	1,442,000	.....	50	29	49.75	27.75	413 M
23.....	1,758,000	45,000	39	23	54.95	32.05	447 M
24.....	1,758,000	103,000	35	23	49.65	32.15	439 M
25.....	2,700,000	.....	55	24	64.25	30.60	451 G
26.....	2,999,000	1,282,000	40	20	55.40	31.65	430 M
27.....	3,056,000	.....	27	14	59.00	37.45	439 M
28.....	3,158,000	88,000	40	27	55.90	31.15	433 M
29.....	3,167,000	.....	50	30	58.75	29.70	451 G
30.....	4,180,000	.....	86	50	79.40	43.35	481 E
31.....	4,215,000	.....	42	18	48.95	28.10	417 M
32.....	5,239,000	163,000	36	22	57.80	39.00	428 M
33.....	13,356,000	3,219,000	38	23	49.85	30.20	436 M
34.....	57,820,000	1,284,000	38	25	53.60	29.80	433 M

E-Excellent. G-Good. M-Medium.

The dairy scored highest on all three cards, entitling the owner by a large margin, to sell Grade A milk, raw, was among the poorest, bacteriologically (No. 30), with a count of over 4,000,000; and the one scored second was only No. 16 by bacteria count. Of the ten dairies with the best score card records, eight were in the poor half of the list by the bacterial test of care and cleanliness. Only one dairy, No. 11, was given the same rank by the cards as by the number of bacteria found.

Conclusion

In so far as the quality of milk can be determined by present laboratory methods, there exists no relationship between the quality of milk and the dairy score on the score cards now in use. Milk of all grades, ranging from the finest quality to the poorest, is produced in barns which would be excluded on account of low scores. All grades of milk are likewise produced in the high-scoring barns.

The real explanation for this lack of relationship between the scores and the bacteria counts cannot be given as yet with absolute certainty. The most apparent reason, as shown by investigations made at this Station, is that a

large number of the items included on the score card have little or no effect upon the number of bacteria present in the milk. In other words, too great emphasis is placed upon unessential factors in all of the score cards studied, with a consequent lessened emphasis upon the factors which actually do affect the milk.

Some may contend that these findings encourage the production of milk under filthy conditions. This contention will be raised only by those who hold the idea that low-scoring dairies are necessarily unsanitary and filthy. Such conditions have, however, not been found to hold true in the region studied; because low-scoring dairies were found which vied in cleanliness with the most ideal of the high-scoring dairies. On the contrary, however, these facts give decided encouragement to the intelligent dairyman who finds that he can produce high-grade milk by the simple observation of the few essential factors of cleanliness and care. This places him in a position to secure a greater profit from his business while at the same time he has the moral satisfaction of knowing that he is selling a high-grade article. Where the present score cards are used, all dairies, in order to get credit for Grade A milk, are forced to an additional expense and consequently to an increased cost of production. At the same time a compliance with the score-card requirements carries with it no guarantee that the quality of milk will be improved or rendered more safe from the standpoint of public health.

The fact that high-grade milk can be produced with simple equipment likewise gives encouragement to the consumer who is as much interested in keeping down the cost of producing high-grade milk as is the producer.

None of the results secured in this investigation can be so construed as to disprove the value of dairy score cards, but they do show that present score cards cannot be satisfactorily used as a means of grading milk according to quality. There is little hope of designing a score card which will accomplish this purpose until all of the factors which are thought to affect the quality of milk in any way have been carefully studied; and the influence of each determined and accurately measured. In this way the really important factors can be singled out and given the proper values on the score card.

BACTERIAL TESTS

The bacterial test, however, affords as sure an index to the sanitary condition of milk as science has yet developed. Dr. Charles E. North, called as a witness before the Committee, testified:

"I live at Monclair, N. J., and am a consulting sanitary expert. I have been connected with milk problems for about sixteen years and am a member of the National Commission on Milk Standards. This National Committee on Milk Standards is composed of twenty of the leading health authorities and scientific authorities in America, especially those who have given attention to the relation of milk to the public health. They were selected by the New York Milk Committee. This committee has been in existence

about five years. It has held meetings annually and semi-annually and has published two reports and a third report is about to be published. The commission was brought into existence because it was observed that milk regulations, both State and municipal, were not only provincial in character but simply lacking in uniformity, with the result that the different municipalities in the states each had a milk problem of their own and many of them were finding solutions that seemed to be quite antagonistic to the solutions that were found elsewhere. The commission was selected with the particular view of not overlooking in any way the economic aspects of the milk problem, while keeping in mind the public health aspects as being of primary importance. In other words, they have tried to make their reports cover the economic questions as well as the public health questions.

I think that the recommendations of the commission can best be summarized by saying that they believed that the grading of milk into two or more grades, according to its sanitary character, is a principle which solves the economic problems as well as the public health problems involved. That is to say, the grading system is a financial advantage to the producer as well as a public health advantage to the consumer. We also believe it is of financial advantage to the dealer or distributor. It is the opinion of this Committee that while local conditions may make it necessary to modify the methods by which this principle of grading is established or adopted, yet the principle itself is so sound that there is hardly conceivable a local condition which cannot be penetrated by the adoption of the system of grading. I might say to you that a survey of the milk industry five years ago would have shown very clearly that about the only point of uniform recognition in the milk business was that all milk looks white. Outside of that one point, there was no constant factors which everybody recognized. The result was that the producers of milk who were conscientious and clean in their methods and interested in keeping the dairy sanitary and in sterilizing their cans and in keeping their cows clean and in using ice for refrigeration, would bring milk to the country shipping station and find when it was received at the door it was dumped into the same tank with the milk of their next door neighbor who may have a diseased herd of cattle, who might use filthy and unsterilized

utensils, and employ filthy methods, and yet these two milks were poured into the same tank and the producers were paid the same price. In other words, there was no distinction whatever drawn by the industry or the public between milk of a sanitary character and milk of an unsanitary character.

This commission believed that milk is a commodity which lends itself just as easily to grading as any other commodity in the market. Butter was graded, eggs are graded, all food products sold according to grade, and the only reason why milk had not been marketed according to grade in the past has been that the industry and the health authorities had no way of measuring or distinguishing one grade of milk from another. They have known how to measure its butter fat, but they have not known how to measure its sanitary character. Now, I think that in the Commission's report it has been made very clear that they believe they have discovered the measuring stick by which the industry as well as the Health Department can discover the difference between milk of high sanitary value and milk of low sanitary value, and that is by the bacterial test. They have rescued the bacterial test from the medical research departments and dragged it into the public view.

What I refer to is the use of the laboratory, but it is a laboratory that does not cost more than \$200 to equip and the employment of an operator who is of equal intelligence to a man that is fit and can take a Babcock test.

That is being done now on a very large scale by the milk industry and those bacterial laboratories are now dotted all over the country and are being used to determine the difference between the milk which one farmer brings and the milk which another farmer brings to the shipping station for the purpose of using those results as a basis of payment to the farmer. This system properly carried out makes it possible to base the prices to the producer on the number of bacteria contained in his milk, just as you base his price on butter fat.

Those laboratories are located in a number of prominent shipping stations at the present time. The first one I think was installed at Homer by the New York Dairy Demonstration Company; another one at the present time is at Rockdale, N. Y., a big shipping station. There is one at Fair Haven, Vermont; there are a num-

ber of other big shipping stations. The Sheffield Farms have three installed in their plants at the present time.

They make the bacterial count at the source as the milk comes in.

Of course, there are a number who send the samples to New York City to ascertain the bacterial count. They do not maintain the laboratories at the country station. One of those companies is the Alexander Campbell. They grade the farmer's contract that way. The farmers are paid according to the bacteria test. I am operating nine of these myself in different parts of the country.

They are usually installed in one of the upper rooms of the creamery and are equipped with simple and inexpensive apparatus. For instance, instead of buying an incubator which laboratories would use and which would cost several hundred dollars, we use an egg incubator which costs \$15 or \$20. The temperature is maintained close enough within a degree and in that you can get results which are just as uniform and reliable as you can get with more expensive medical apparatus. The glass-ware is identical with the glass-ware that is used in the college and we can take a high school boy or girl who has been drilled in this work for two months and put them out there and their results are so reliable that they can be depended on. They can expand the field of a cubic centimeter of milk, etc., to make the count just as well as it can be done in the laboratory. It is being done now in numerous places under practical working conditions, and we can check up their work with skilled employees in a fully equipped medical laboratory. I am of the opinion and I am also certain that farmers who understand the matter and have experienced it are of the opinion because they are anxious to receive extra premium for clean milk, that every station that handles a large amount of milk could maintain and operate its own laboratory for the bacteria count.

The Actual Work of Bacteria Count

I might say to you that in one station which was recently opened where fifty-eight farmers were patrons, within four weeks' time after the bacteria count was put in operation, thirty-eight of those men received full premium for low bacteria count. It is easy for them to earn the premium. The adoption of the simple sanitary measures necessary to keep the bacteria out of the milk is so

easy that it is within the reach of any producer. Equipment is not important. Methods is the only important item. I agree fully with the New York State Experiment Farm Bulletin. Farmers with very high score under the old method produced very high bacterial count, and poor score produced a very low count. The dairyman and his methods are the important factor.

How Cost of Production is Affected

I understand that this Committee is primarily interested in the question of cost. Cost, of course, is a question of volume. When you come to the application of sanitation of milk, once more you run across the difficulty of volume. If you take a given quality of milk and apply first to it brains and overhead expense, if that quantity is only 300 quarts a day you are going to get quite a different tax on each quart from what you have if it were several thousand quarts a day. In the application of the principle to which I refer, we estimate the cost of cleanliness on the basis of applying the sanitary overhead charges on several thousand quarts of milk daily at one shipping point through which we can exercise supervision over scores of dairy farms. That reduces the tax from perhaps five or six cents a quart which it would be to a private farmer over the market price, to only a fraction of a cent for supervision.

For instance, at a shipping station with 100 farms we can transform that milk by these methods from millions of bacteria to less than ten thousand bacteria count for less than half a cent a quart, just because we have the volume of milk to deal with.

The ordinary dairy farm of ten or fifteen or twenty cows, as ordinarily conducted, will average 500,000 per CC under ordinary conditions. If he wants to make milk down to 10,000 and get the premium he will have to change his equipment from the ordinary equipment to the sanitary equipment. That change will cost about five dollars unless he is without ice. If he is without ice, he will have to go to the expense of making arrangements for ice. That is, if he is in a territory where ice grows, he must provide himself with ice to make that kind of milk the year round. In some of the states, such as Pennsylvania and Maryland, ice is difficult to get, so the farmers deliver the milk twice a day where they have not got ice.

In other places, we supply the ice in the station and sell it to the farmer at cost. That is being done at Rockdale, N. Y., now. The Homer Company did the same thing.

When I say an expense of \$5, I refer to the purchase of covers for milk pails, strainer cloths, etc.

The dairyman, because of the extra cost to him of labor and running expense, demands a premium from one-quarter to three-quarters of a cent a quart. One of these grade A station in Vermont is paying thirty cents a can premium for bacteria under 10,000, whereas the Homer station is paying ten cents a can for bacteria count under 10,000. It is very difficult to get a definite answer as to what the additional cost of labor will be to the farmer from day to day, because it is not possible for the dairyman to get together at any one point just where he spends the extra time. He does just a little more on several items. He will use a little more boiling water; he will use a little more alkali washing water; he spends a little more time washing cans; he spends a little more time washing his hands; he spends a little more time to cleanse the cows a little cleaner. When he sits down to milk, he takes a little longer to milk, because he is a little more careful. He will use a little more ice, and in that way it all figures a little more. It gets to exercising greater care all along the line.

The real secret of the whole thing is his being conscientious during his operations if the milk is going to be tested when it gets to the station for bacteria, and he is going to be paid at the end of the month according to that test. If he knows that, he has that constant stimulus.

The interests of both producer and consumer require that this premium for low bacteria count be paid. The producer can make it, but the economic problem that we have before us is what we are going to do after we have made it.

Consumer's Duty

I find that the producer and the dealer are only too ready to take this class of goods. When we come to sell it, you have got to do something which will distinguish that milk from other milk you market and that is where the grading system comes in. A grading system gives a complete answer to that question by attaching a

label to clean milk. When you put a label and a stamp on it, then you can identify it. I believe that Grade A Pasteurized is the coming milk. We think it is the household milk of the future.

The only safeguard we have against bovine tuberculosis and other diseases is pasteurization. Of course, the dairyman wants to keep disease out of his herd because of the damage it does to his herd and not because of the damage it does to the consumer. Every farmer wants to keep a healthy herd because he needs a healthy herd; he does not want his cows to be sick, but the application of a universal tuberculin test would be a calamity from my knowledge of the existence of bovine tuberculosis. If all the tubercular cows were excluded from the herd, milk would be extremely rare, so that the best we can get under present conditions is to have selected dairies from tuberculin tested herds that is not pasteurized. Udder diseases in cattle are so prevalent and common and so obnoxious that much more emphasis must be laid upon that question. When you have a disease of the udder, you have got something that is going to go into the milk directly.

Necessity of Pasteurization

It is because of those udder diseases more perhaps than any other class of diseases that State legislation should require pasteurization. All the small communities of the State, outside of New York city, are subject to the menace of diseases of the udders of cattle. You cannot go into a dairy herd that contains more than ten cows in the State of New York without finding a swollen udder, red, or indicating that the cow has had garget or udder disease. The bacteria which goes with that disease are well known. They are what we call the streptococci type, the same kind that gives sore throat in the human being and that produces tonsilitis; we don't have to go so far as to say, septic sore throat, but the ordinary types of sore throat. Chronic throat inflammations, as well as acute inflammations, which are constantly kept up by absorbing an unpasteurized milk from cows which have these sore udders and milk impregnated with this type of bacteria; the old fashioned garget is the principal type of this disease. Some authorities go so far as to say that when you have a specific epidemic, such as a septic sore throat, you are dealing with a peculiar disease of an acute

type, which has been caused by milk and that the bacteria get into the milk from the cow's udder. Nearly everybody up-State that drinks raw milk has sore throat. Chronic sore throat at one time or another, children as well as adults. All you have to do is to go to the throat specialist to find out and you look into the throat of the average citizen and you will find that the average person has chronic inflammation of some kind, thickening of the tonsils, or of the membrane. It is the great American disease, and the execution of the tonsils is the chronic amusement of the doctors. Rheumatism as we know, is caused by infection of the tonsils. Many of the worst inflammations in other organs of the body are caused by these throat inflammations which start in the tonsils. Our health authorities were neglectful for years in not making a proper record of outbreaks of disease. Whenever we find an outbreak of septic sore throat now, we look after the milk supply and have traced it, every one to raw milk or milk which has not been properly pasteurized. I personally investigated several of them. In 1914, I investigated one at Homer, N. Y.— an epidemic of septic sore throat, and it traced that to a dairy of twenty-eight cows, of which two cows had garget. There were 669 cases of the disease in the town of Cortland and Homer. We found seventy per cent of the people buying milk from one firm and the disease itself, being contagious, it was easy to account for the other cases, because they were all connected with the people who had received it through that milk.

Those persons were affected with a numerous swelling of the tonsils in the throat and copious discharges. The doctors all diagnosed the disease as tonsillitis or sore throat. There were thirteen deaths. Many of the cases after the sore throat subsided had attacks of inflammatory rheumatism of the joints. A number of them had peritonitis, erysipelas, appendicitis, endocarditis, and other inflammations which are well recognized as following the inflammation of the tonsils. About the middle of the epidemic we began this investigation. We promptly put that milk off the market, because we found that the history of those cases were closely identified with that dairy. Nobody believed in pasteurization in that town at that time. The forty doctors that attended the meeting were unanimously against it, but they are all for it now. These cases of garget in those cows were easily discoverable on a physical

examination. Pasteurization should be required by law of all milk sold in the State for household use, and a bacteria count affords a satisfactory standard for determining the condition of milk.

Laboratory Service

I am opposed to this idea that the municipalities should be encouraged to enlarge their appropriations for milk inspectors and send them out to dairy farms. The most efficient system consists in the establishment of a laboratory service to test the milk, after the milk has been pasteurized, and you have ascertained where the dirty milk comes from, the large numbers of bacteria that it contains. Then only a small number of inspectors are needed because you can send them to exactly the right spot, as compared with the old system of a widespread inspection which disregards the character of the milk that is coming in, which is only an annoyance to the farmer and does not improve the character of the supply appreciably, and it has been tried for years and years without any improvement in the quality of the milk.

But you take half a dozen inspectors working with the laboratory and test the milk and all you need to do is to work on the dirty milk. This system also would check milk station conditions. The bacteria test of the station milk when it reaches the city will take care of that.

State Supervision

It has been suggested that the State might inspect the dairies and the city test the milk. It seems to me that it is ridiculous to have a duplication of work throughout the dairy districts. As a matter of fact, if you take a big shipping station that happens to be sending milk to three or four cities, for instance, to Newark, New Jersey, Jersey City, and New York, they are subject at the present time to the inspection of the health officials and milk inspectors of all three of those cities. You can go to certain farms in New York State and see the regulations of these cities hanging side by side in the barn. I think that would all be eliminated if the State had a system of dairy inspection which inspected those farms themselves. So far as the sanitary conditions in the farms or concerned, that could well be done by the State authorities.

Pennsylvania System

That is already in force in the State of Pennsylvania. The cities of Pennsylvania have no authority to inspect dairy farms. All inspection is done by the State. If a city wants to know anything about the farms they get in touch with the State and the State authorities give them the information. The city authorities simply test the milk. They get their information or rating of the farm from the State Department of Agriculture, and the health authorities if a rating is unfavorable, preclude it. If the health authorities want to know anything about a dairy herd, whether it is a single herd or more than a single herd, they can get that information from the State. Then if we check the milk station and if the milk station shows ill, we can exclude the milk station in the city and then the milk station man could be ordered to ascertain what farms are at fault, and also the industry is safeguarded by having the consumer adjust his proper price system on the bacteria count.

All Milk Should be Paid for on Bacteria Count

All milk should be paid for on this bacteria count more than on the butter fat test. This should even apply if the milk is to be made for butter. Of course, in that case, the butter fat premium and the clean milk premium should go hand in hand. Such butter necessarily when properly handled would bring a higher price."

HOW BACTERIA ARE COUNTED

WILLIAM HALLOCK PARK, called as a witness, testified:

"I am a director of the Bureau of Laboratories of the Department of Health of the City of New York. At the present time, a part of the routine work done by the laboratories is determining the number of living bacterias in samples of milk sent to the laboratory by the Bureau of Foods. We make several hundred such examinations daily and report those to the Bureau of Foods, upon which action is taken. Then if an epidemic develops of septic sore throat, we try and trace out the origin of that epidemic to some human being or some cow up the State, make a report to the Bureau of Foods upon anything we find. So we have the routine work of the daily examination for the sanitary control of

the milk and the special examination for septic sore throat or diphtheria, tuberculosis, or some other disease. As soon as disease attracts attention in some locality we go to work at that. In our routine daily work, we would not look for any specific type of bacteria but purely the number. Two years ago, there was a discussion between four of the laboratories in this city,— the Health Department laboratory and three private laboratories.

The accounts disagreed quite markedly; the city laboratories got figures about four times as large as the lowest of the private laboratories and so it was agreed between these laboratories and the city laboratories to have Professor Kahn of Wesleyan University send to us on different occasions samples of the same milk, each laboratory getting thirty samples of the same milk as the other laboratories, but the numbers would be different so we wouldn't know, even if we wished to, how to compare with each other. We then reported to him our tests, and the first time the difference was still quite marked between laboratories. We found that was considerably due to a misinterpretation of the language in the report of the American Public Health Association in which it said, that persons making the count of the bacteria could either use a lens or their eye, leaving it just that way, and two of the laboratories considered that that meant that in any case you could either use your lens or not, while the report means if you used a lens and saw nothing more with the lens than with your naked eye, then you could use your naked eye alone, but if you saw more with the lens, you should use the lens. When that was straightened out and we all used the same lens, that is, of the same magnifying power, our results on Dr. Kahn's samples very nearly agreed, and by carefully using the same materials we got very nearly together. So we agreed, and the American Public Health Association agreed, to advise standard material, the idea being not to find all the bacteria that will develop, but to have a uniform development and make our standards on that. Now, we use meat extracts alone as a culture and no fresh meat, as some of the laboratories formerly did, and after we agreed on the material and agreed upon the examining lens, our results were very close. That is, close in reference to the subject under discussion.

About twenty-three years ago, Dr. Biggs, who was the medical officer at that time, suggested to the Board of Health

and to the Board of Estimate that the city should have a bacteriological laboratory. The laboratory was started and I became his assistant in that work. It grew and we began to take up various problems. In 1900 we thought on account of certain things that happened that milk should be tested in this laboratory. Before that milk had been considered only on its food value and not on its wholesomeness. So in connection with the Rockefeller Institute, that allowed us a considerable sum of money, and with the Health Department, nurses and physicians and laboratory workers, we tested out the effect of different types of milk in the feeding of children. We took three groups, one group supplied with ordinary grocery milk; one with milk from the Straus milk stations; one with Briarcliff Manor certified milk, which was furnished us by Mr. Law free as a test of the value of pure raw milk. That experiment demonstrated that the quality of milk had a very important bearing on the mortality rate of infants under one year old in this city. It also indicated that pasteurized milk produced nearly as good results as the certified milk, and it demonstrated that sanitary control was very important, as affecting the death rate of children. We began to make laboratory examinations. The bacteria count, which may be of little importance to adults in the use of milk, is of vital importance when fed to children. A great number of bacteria indicates that the milk is dangerous to babies, although the same milk might be used by adult persons without serious results, unless it had specific disease producing bacteria. We approached the milk dealers in two ways. First, we tried to persuade a number of them to undertake the production of a very clean raw milk and through the Board of Health's cooperation, a number agreed to do this. The work was done in the Health Department laboratory. The name "certified milk" was introduced and restricted to milk which was approved by the authorities, first, the Health Department, second, by a committee of physicians which by law of this State must be a committee appointed by the Medical Society.

Certified Milk

The idea of the Medical Milk Commission was that there should be a body of men who had no self interest. No member of it can receive any remuneration for the work. That we would have

trained inspectors and the inspectors would report to the Commission and the Board of Health might report to the commission. It was not to replace the Board of Health but it was to aid the Health Board's action. This meant a group of men that had nothing but the public welfare in their minds. It was not thought at that time that the Health Department could grade milk; but the milk commission could give a much higher standard for one or two per cent of the milk supply of New York, so the milk commission was made to certify to certain milk as being sanitary.

New York Milk Committee

Then a body of volunteers organized the New York Milk Committee to aid in the work and they exercised considerable influence upon the movement for better milk. Then developed the dairy inspection methods. Then the milk dealers established laboratories of their own and private laboratories were established to aid the milk dealers. Typhoid is the lowest now it has ever been in New York city. That is not true all over the United States. We have dropped in New York faster than the average. The infant death-rate is the lowest that it has ever been, except as it may have been affected by poliomyelitis this year. Leaving that out, the death-rate this year was less than it has been at any time in New York city.

Bovine Tuberculosis in Children

We tested four years ago the amount of bovine tuberculosis in children in this city and we found that about one-third of all glandular swellings in children was due to bovine tuberculosis. There was a considerable proportion of deaths in children under two years from tuberculosis due to bovine infections. During this last six months, we have been testing over again, and after three years of pretty complete pasteurization, we find now that there is practically no bovine tuberculosis in the children that have lived in New York under three years of age. I suggest that by the use of pasteurization we have practically blotted out new bovine infection in children.

Infection of Bovine Tuberculosis

Different localities have different amounts of bovine tuberculosis, depending upon various things, as to the question of whether the milk is raw, boiled or pasteurized; the amount of bovine tuberculosis and the degree to which children are nourished by mothers. In New York we found that there was practically no bovine in persons over sixteen years of age; we found that between three and sixteen there was a decreasing amount from the early age to the older age in the amount of local tuberculosis of the glands of the neck, chiefly, and of other lymphatic glands of the body. Below that age, we found considerable amount of fatal tuberculosis in children and five per cent of the children dying of tuberculosis die of bovine tuberculosis. It made a considerable number of cases in New York, upwards of 300 a year, infant children; those were only the death cases. Then there were probably two or three thousand cases of glandular swelling due to it, not fatal; so it was a problem sufficiently important to be seriously considered and eradicated, if possible. Retesting it now, we find a very different condition. We find now practically no bovine infection in children who have lived three years in New York. Our raw milk supply is better and pasteurization reasonably secures us against disease infection.

Mechanism of the Bacteria Count

There are two methods: One is to make a count of the actual number of bacteria in milk. You take one one-hundredth of a cubic centimeter of milk and smear it over a defined area of a slide; you fix that milk, remove its fat and stain it on the slide; then examine it under the microscope on the slide for bacteria. Count the actual number of bacteria by counting a certain proportion of the area and multiply the whole area by the result. That gives the whole number of bacteria in the milk, but to do that requires more expert assistants than the routine ordinary way. It is harder on the eyes, and on the whole it does not seem to give any better result than the ordinary method of estimation of the sanitary condition. We want to know the live bacteria, and not the dead bacteria, in much of our work, and this method falls down in

the pasteurized milk, because it shows the dead as well as the living. So that nearly all laboratories now follow a routine method of using a jelly and don't use the count. The direct microscopic examination is at the place where the herds are, so as to get an immediate idea of not only the number, but the types of bacteria coming from the different cows in the herd, or the different compound of milk of different herds, but the routine method is as follows: In the first place, the samples are taken by the inspectors in small bundles with the caps marked with numbers so that as far as possible we safeguard against the mixing up of one herd with another herd. That is done by the operator at the country station or in the creamery, or even here at the wagon or at the railroad. These samples must be preserved in ice, otherwise, the bacteria that were in there at the start would increase before the laboratory got the sample, so they are all required to be iced by being kept in packs prepared for that purpose. The sample then reaches the laboratory and is put in an ice-box and covered with cracked ice so as to be sure to keep it cool during the two or three hours it stays there before being examined; that is, the individual bottle. Now, we will take one and follow it out. The bottle is taken from the ice-box and shaken twenty-five times. We have a definite number of shakes so as to have everybody follow the same method. One cubic centimeter of this sample from this bottle is then placed in another bottle containing 100 CC of sterile water. This again is shaken twenty-five times. One cubic centimeter of this dilution is put into a covered glass dish; a second one cubic centimeter is put in a second covered glass dish. On to this is poured ten cubic centimeters of a nutrient agar jelly which is about 40 degrees centigrade. It is thoroughly liquid, but not so hot as to injure the bacteria. The mixture now of the diluted milk and the melted nutrient agar is shaken back and forth on a plate so as to pretty thoroughly disseminate the milk and the bacteria in the milk throughout the jelly. This is then allowed to harden and placed in an incubator in the room at blood heat for forty-eight hours. During this time each living germ or bunch of germs, because the germs are so small that a bunch makes only a visible growth, which we call a colony, develops. Then we count the colonies. It is like looking at a tree a mile away. You see the tree of bacteria or bunch.

Now, we take from the first diluted bottle one cubic centimeter and add it to another bottle of one hundred cubic centimeters of water and do the same thing with that dilution; now the colonies in the first two plates show the number of living bacteria or groups of bacteria in one one-hundredths of a cubic centimeter of the milk, and in the second two plates of one ten-thousandths of a cubic centimeter of the original milk and we multiply then the number of colonies we get by one hundred or by ten thousand, according to the dilution. If we want to be still more accurate, we make dilutions in between those to one one-hundredth, one one-thousandth, one to ten-thousandth, one to one one-hundred thousandth; but, as a rule, in the Health Department work we utilize only two dilutions. That is sufficient for grading purposes. The aim of that process is to spread a large proportional sample in a large field so they can be readily observed. If you use more milk and the milk was seeded highly with bacteria, there would be such a crowd that you could not count, so we take a very small part and spread that over a large field. Of course, there will be discrepancies in the count, but it will be fairly accurate, in reference to such work.

Of course, nobody at any time or place undertakes to enumerate a million or half million of bacteria in a sample, but we thus take a small proportionate sample and spread that out and count the bacteria in that and multiply that by the cubic centimeter and we have the approximate number that the original sample contained. We spread it out so that if we found four bacteria on one plate and five on another, we would have $4\frac{1}{2}$ bacteria count on the plates, and we would multiply that by the part. If the sample was one and one-ten thousandth, that could would show 40,000 to 50,000. This method is a fair index of the cleanliness of production or care that milk has had."

SO-CALLED "B" AND "C" MILK MINGLED IN THE SHIPPING STATION

Certain distributors in their contracts provide for the payment of ten cents per hundred for so-called "B" milk or milk from dairies having a total barn score of 68 points on the official score card more than is paid for milk from those dairies where the barn

score is not 68 on the official score card. This results in a certain per cent of the dairymen in some stations securing ten cents less per hundred for their milk than their neighbors with a higher score. From time to time, a new barn scoring either by the station manager or the agent of the Department of Health, results in the score card being reduced and thus giving the dairyman less than 25 points on equipment and 43 points on methods. This results in the dairyman losing the ten cents a hundred "premium," as it is designated, or "penalty" as it appears to the dairyman.

It is not uncommon to find stations where from one-third to one-half of the dairymen would have a score below 68 and thus lose this ten cents per hundred pounds on the price of their milk. Not all the stations engaged in collecting and shipping to New York milk eligible for "Grade (pasteurized)" pay any additional price for the higher barn score. It is only in the sections where operators add the additional ten cents for one reason or another that the question arises.

At many of those stations, however the dairyman observes that the so-called "B" milk from dairies scoring 68 is mingled with the so-called "C" milk from dairies with a less score than 68, and the mingled milk with no distinctive marks shipped to the city.

Because of this practice, the belief has arisen in many communities that the payment of ten cents per hundred less for milk from dairies not scoring 68 was merely an instrumentality adopted by the station to procure a portion of the milk supplied at a lower cost. Without understanding the purpose of the additional ten cents per hundredweight, and the methods of the distributors paying the so-called premium, such would undoubtedly appear to be the case.

The Sanitary Code of the City of New York governing the production, transportation, pasteurization and sale of milk, etc., provides, among other things:

Grade A. Milk or Cream, Pasteurized

Regulation 120. Bacterial content.—Milk of this designation shall not contain more than 30,000 bacteria per CC—when delivered to the consumer.

Regulation 121. Scoring of dairies.—All dairies producing milk or cream of this designation shall score at least 25 points on equipment and 43 points on methods, or a total score of 68 points on an official score card approved by the Department of Health.

Regulation 122. Times of delivery.—Milk or cream of this designation shall be delivered within thirty-six hours after pasteurization.

Regulation 123. Bottling.—Milk or cream of this designation shall be delivered to the consumer only in bottles, unless otherwise specified.

Regulations Governing the Sale of Grade B Milk or Cream, Pasteurized

Regulation 129. Bacterial content.—No milk under this designation shall contain more than 100,000 bacteria per CC — when delivered to the consumer. No milk supplied averaging more than 300,000 bacteria per CC shall be pasteurized outside the city of New York to be sold in said city under this designation.

Regulation 130. Scoring of dairies.—Dairies producing milk or cream of this designation shall score at least 20 points on equipment and 35 points on methods, or a total score of 55 points, on an official score card approved by the Department of Health.

Regulation 131. Time of delivery.—Milk of this designation shall be delivered within thirty-six hours after pasteurization.

Regulation 132. Bottling.—Milk of this designation may be delivered in cans or bottles.

Regulations Governing Creameries, Receiving Stations and Pasteurizing Plants

Section 35. Milk or cream not to be pasteurized a second time.—No milk or cream shall be pasteurized a second time.

Section 36. Pasteurized milk to be bottled at places of pasteurization.—Pasteurized milk shall not be held, kept, offered for sale or sold in bottles unless such milk has been bottled at the place of pasteurization.

Section 37. Room and apparatus used for the pasteurization of Grade A milk.—Milk or cream shall not be received in any room or apparatus where Grade A pasteurized milk or cream is handled or treated unless the said milk or cream complies with the regulations for Grade A pasteurized milk.

The enforcement of these regulations, therefore, would establish that when milk from the dairy scoring from 55 to 68 on the official score card (the so-called "C" milk) is delivered to the station where it is mingled with milk from dairies scoring 68 and upward, all the milk at such station is at once reduced so as to be eligible only for the Grade B pasteurized product. In other words, it would appear that the premium milk is at once *reduced by the mingling* to have the same sale value or grade value as the milk for which no premium is paid, instead of the lower price milk being raised to the higher grade by the mingling process. In such collecting stations, the milk from dairies scoring 68 and upward is only eligible for the same grade of pasteurized milk as that from dairies scoring 55 and upwards.

An examination of the audits of the larger companies contained in this report will disclose that only a comparatively small part of the milk from dairies scoring 68 and upward, which is purchased

by those companies at 10 cents per cwt. additional, could be or is disposed of as Grade "A" (pasteurized.) The demand for that product is relatively small. *The great bulk of the product goes into Grade B pasteurized*, the same grade as so called "C" milk from dairies scoring below 68 and above 55.

If only those dairies which actually produce milk used for Grade "A" (pasteurized) received the ten cents per hundred pounds additional in price, by far the majority of the dairymen now receiving the so-called barn score premium would be cut off from any benefit from the high barn score obtained. The market for Grade "A" (pasteurized) would take but a small part of the milk produced by dairymen obtaining the higher barn score. It therefore appears that, in regard to these stations where so-called "B" and "C" milk are mingled and shipped in cans to New York city, the distributor sells such milk for no higher price than that received for milk from shipping stations where only "C" milk (that is, with a barn score between 55 and 68) is gathered.

The question naturally arises as to why then certain distributors should pay an additional ten cents per hundred from barns scoring 68 and upwards, while others ignore this altogether. That question is answered by those distributors to this effect; that the payment of the higher price induces the dairyman to improve his methods and equipment and thereby secure a better quality of milk and enables them to furnish a better product to his customers; that a general improvement in the condition of the dairies supplying the stations is to the advantage of their business and that they can afford to pay and are willing to pay an additional price for such improvement; that they aim to have their Grade "B" (pasteurized milk) as sanitary in every way as the Grade "A" (pasteurized), in order to meet the increasing sanitary requirements of the Health Department. It may be observed also that the payment of a Grade "A" (pasteurized) price at collecting stations where only milk eligible for Grade "B" (pasteurized) is assembled, is really the payment of an advanced price for a part of the same sales product and thus undoubtedly secures to certain distributors a larger supply of milk than they would otherwise have. That result is a direct benefit to the dairymen. However, the distributor who does not assume to handle anything but Grade "B" (pasteurized) product or even

Grade "C" milk (eligible for cooking and manufacturing purposes only), frequently in adjusting his price uses these features of the business to buy milk at much lower prices than is paid by other distributors, by pointing out to the dairymen within the range of his collecting station, that they can afford to deliver him milk at a considerably lower price because he does not require a high barn score.

This lengthy statement is made for the purpose of affording a clear understanding of a matter which seems to be troublesome in certain sections from the obvious mingling of the high and low grade milk at certain stations. It seems to be apparent that the abandonment of the practice of paying a premium for the high barn score would not be advantageous to the dairyman with the low score, but would only be detrimental and discouraging to the dairyman with the high score.

SANITARY CODE AND REGULATIONS GOVERNING THE PRODUCTION, TRANSPORTATION, PASTEURIZATION AND SALE OF MILK, CREAM, OR CONCENTRATED MILK, CONDENSED SKIM MILK AND MODIFIED MILK

DEPARTMENT OF HEALTH

139 Centre Street, New York City

Section 155. Milk, cream, condensed, or concentrated milk, condensed skimmed milk, and modified milk; sale regulated; term "modified milk" defined; exception.—No milk or cream, condensed or concentrated milk, condensed skimmed milk, or modified milk, shall be held, kept, offered for sale, sold or delivered in the city of New York without a permit issued therefore by the Board of Health or otherwise than in accordance with the terms of said permit and with the Regulations of said Board.

By the term "modified milk" is meant milk of any subdivision of the classification known as "Grade A; for Infants and Children," which has been changed by the addition of water, sugar of milk, or other substance intended to render the milk suitable for infant feeding.

The provisions of this section shall not apply to milk or cream sold in hotels, restaurants, and retail stores, nor to condensed milk or condensed skimmed milk when contained in hermetically sealed cans. (As amended by the Board of Health Dec. 21, 1915.)

Sec. 156. Milk and cream; grades and designations.—All milk or cream held, kept, offered for sale, sold or delivered in the city of New York shall be so held, kept, offered for sale, sold or delivered in accordance with the

Regulations of the Board of Health and under any of the following grades or designations and not otherwise:

"Grade A: For infants and children."

1. Milk or cream (raw).
2. Milk or cream (pasteurized).

"Grade B: For Adults."

1. Milk or cream (pasteurized).

"Grade C: For cooking and Manufacturing Purposes Only."

1. Milk or cream not conforming to the requirements of any of the subdivisions of Grade A or Grade B, and which has been pasteurized according to the Regulations of the Board of Health or boiled for at least two (2) minutes.
2. Condensed skimmed milk.

The provisions of this section shall apply to milk or cream used for the purpose of producing or used in preparation of sour milk, buttermilk, homogenized milk, milk curds, sour cream, Smeteny, Kumyss, Matzoon, Zoolak, and other similar products or preparations so provided that any such product or preparation be held, kept, offered for sale, sold or delivered in the city of New York.

Regulations of the Department of Health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to sections 155 and 156 of the Sanitary Code.

Regulation 1. Milk, cream, and condensed milk not to be stored in stables or other insanitary places.—Milk, cream, or condensed milk shall not be handled, stored, offered for sale, or sold in any stable; room used for sleeping purposes; or in any room or place which is dark, damp, poorly ventilated, or insanitary.

Regulation 2. Water-closet compartments.—Every water-closet compartment, except when provided with mechanical means of ventilation, shall have a window at least one foot by three feet between stop-beads opening to the external air and the entire window shall be made so as to readily open, or an opening connected with the external air measuring at least 144 square inches for each water-closet or urinal, with an increase of 72 square inches for each additional water-closet or urinal. The door or doors of the water-closet compartment shall be self-closing. Where the water-closet is in direct communication with the room in which food is prepared or stored, if required by the Department of Health, a suitable and properly lighted vestibule shall be provided. The door of the vestibule shall be self-closing. All water-closet fixtures, water-closet compartments, and vestibules shall be maintained in a clean and sanitary condition and in good repair.

Regulation 3. Rooms, insanitary condition.—Milk, condensed milk, or cream shall not be sold or stored in any room which is dark, poorly ventilated, or dirty, or in which rubbish or useless material is allowed to accumulate, or in which there are offensive odors.

Regulation 4. Milk vessels to be protected.—All vessels which contain milk, condensed milk, or cream, must be protected by suitable covers. Ves-

sels must be so placed that milk, condensed milk, or cream will not become contaminated by dust, dirt, or flies.

Regulation 5. Milk not to be kept on sidewalk.—Milk, condensed milk, or cream shall not be allowed to stand on the sidewalk or outside of the store, longer than is absolutely necessary for transportation.

Regulation 6. Milk not to be transferred on street.—Milk, condensed milk, or cream must not be transferred from one container to another on the streets, at ferries or at railroad depots.

Regulation 7. Ice tub or ice-box to be provided.—Vessels in which milk, condensed milk, or cream is kept for sale shall be kept either in a milk tub, properly iced, or in a clean ice-box or refrigerator in which these or similar articles of food are stored.

Regulation 8. Containers to be cleaned and sterilized.—All containers in which milk, condensed milk, or cream is stored, handled, transported, or sold, must be thoroughly cleaned and sterilized before filling. Such cleaning and sterilizing shall not be done, nor shall any containers be filled in any stable, in any room used for sleeping purposes, or in any room having a direct connection with such stables or rooms, or with water-closet compartments, unless such water-closet compartments conform to Regulation 2 of these regulations.

Regulation 9. Ice-box or ice-tub to be kept clean.—The ice-box or ice-tub in which milk, condensed milk, or cream is kept must be maintained in a thoroughly clean condition.

Regulation 10. Drainage of ice-box.—The over-flow pipe from the ice-box in which milk, condensed milk, or cream is kept must not be directly connected with the drain pipe or sewer, but must discharge into a properly trapped, sewer-connected, water-supplied open sink.

Regulation 11. Health of employees.—No person having an infectious disease, or caring for or coming in contact with any person having an infectious disease, shall handle milk.

Regulation 12. Worn or badly rusted receptacles.—All cans or receptacles used in the sale or delivery of milk, cream, or condensed milk when found to be in an unfit condition to be so used by reason of being worn out, badly rusted, or with rusted inside surface, or in such condition that they cannot be rendered clean and sanitary by washing shall be condemned by inspectors of this Department. Every such can or receptacle when so condemned shall be marked by a stamp, impression, or device showing that it had been so condemned and when so condemned shall not thereafter be used by any person, for the purpose of selling, delivering, or shipping milk, cream, or condensed milk.

ADDITIONAL REGULATIONS GOVERNING THE PRODUCTION AND SALE OF MILK WITHIN THE CITY OF NEW YORK.

Regulation 16. Milk produced in violation of the regulations.—Milk produced in violation of these regulations shall be deemed adulterated as defined in section 156 of the Sanitary Code.

Regulation 17. Water used for washing and cleaning containers.—All water used for washing and cleaning containers, utensils, or apparatus used in preparing milk for sale in the city of New York shall be clean and wholesome. The water shall be, whenever possible, from a public supply of known purity. No water, other than from a public supply, shall be used within the city of New York without a permit therefor issued by the Board of Health.

Regulation 18. Milk house.—A properly constructed, conveniently located milk house shall be provided. The milk house shall have no direct communication with stable.

Regulation 19. Floors of milk house.—The floors of milk house shall be constructed of cement and so graded as to discharge all surface drainage from one or more points into properly trapped sewer-connected drains. Where no sewer is provided the drains must discharge into properly constructed cess-pools. The floor opening of each drain shall be covered by a suitable iron strainer.

Regulation 20. Walls and ceilings.—Walls and ceilings of the milk house must be sheathed and finished smooth to prevent the accumulation of dust and dirt.

Regulation 21. Maintenance of milk house.—The interior of the milk house, unless constructed of cement or similar material, must be painted with some light colored waterproof paint. The milk house must be maintained at all times in a cleanly condition, free from dust, dirt, rubbish, and cobwebs. No material foreign to the proper care and handling of milk shall be kept or allowed to remain in the milk house.

Regulation 22. Separate rooms shall be provided for the handling and storage of milk.—Separate rooms must be provided for the handling and storing of milk and the washing of utensils. Bottle caps and tags must not be stored in the milk handling room. A sufficient number for immediate use should be taken to the bottling room immediately preceding the process of bottling.

Regulation 23. Supply of hot and cold water to be provided.—A convenient and adequate supply of hot and cold water must be provided for washing utensils and cooling milk.

Regulation 24. Cleaning of pails, strainers, bottles, cans, etc.—All pails, strainers, bottles, cans, and apparatus used in handling or bottling milk must be washed, immediately after using, in hot water and some proper alkaline washing solution, rinsed with clean boiling water, and stored in such a manner as to remain clean until used.

Regulation 25. Tubs for washing purposes to be provided.—The wash room must have tubs for washing purposes which shall be constructed of some non-absorbent material. All draining shelves and racks shall also be of non-absorbent material.

Regulation 26. Lighting of milk house and screen doors to be provided.—Each room of the milk house shall be provided with sufficient window light, and all doors and windows shall be screened to prevent the access of flies, between the 1st day of May and the 1st day of November of each year. The premises shall be kept free from vermin at all times. All doors shall be self-closing.

Regulation 27. Cooling and storage facilities to be provided.—The milk room shall contain cooling and storage facilities of sufficient capacity to cool and store all milk produced on the premises during twenty-four hours to a temperature of 50° F. or below. If a pool is used for such purpose it shall be properly drained and trapped. All pools used in the cooling or storage of milk shall be emptied and cleaned at least once in twenty-four hours.

Regulation 28. Connection between milk room and other rooms.—Wherever there is direct connection between the milk room and any other room, a self-closing door must be provided.

Regulation 29. Milk pails.—No pail should be used during the process of milking which has a top opening of a diameter greater than 8 inches. The inner surface of all milk pails and utensils shall be smooth and heavily tinned; all seams must be soldered flush.

Regulation 30. Size of milk house.—The milk house and each room thereof must be of sufficient size to allow plenty of room, and no part of the milk house shall be maintained in an overcrowded condition.

Regulation 31. Milk to be protected.—The milk shall at no time be exposed to dust and dirt.

Regulation 32. Milk handling to be conducted in a cleanly manner.—All milk and milk handling must be conducted in a cleanly manner.

Regulation 33. Health of employees.—No person having or coming in contact directly or indirectly with any infectious or venereal disease shall be allowed to milk, or handle milk or milk utensils.

Regulation 34. Clothing of milkers.—The outer clothing of milkers and milk handlers must consist of clean overalls and jackets of some light colored material.

Regulation 35. Cows to be groomed daily.—Cows must be groomed daily and be kept at all times clean and free from accumulation of manure, mud, or other filth.

Regulation 36. Cows to be clipped.—The long hairs upon the flanks, udders, and tails must be clipped and kept short.

Regulation 37. Cleaning of cows prior to milking.—The udders and teats must be washed clean immediately prior to milking and dried with a clean cloth.

Regulation 38. Throat latch to be used.—To prevent the cows from lying down between cleaning and milking, a throat latch shall be provided and used.

Regulation 39 Cleanliness of milkers.—The hands of milkers and milk handlers must be washed clean with soap and water immediately prior to, and kept clean during the milking and handling of milk. Convenient facilities, consisting of water, soap, basin, and clean towels, shall be provided for such purpose.

Regulation 40. Dry milking.—The hands and teats must be kept dry during milking. The first stream from each teat shall be rejected.

Regulation 41. Health of Cows.—The cows must be healthy and free from disease as determined by a physical examination. Such examination must be made at least once each year by a qualified veterinarian and a certificate certifying thereto filed with the Department of Health, and no cows shall be admitted to the herd until after such physical examination.

Regulation 42. Feeding of Cows.—Only feed which is of good quality, and only grain and coarse fodder which are free from dirt and mould shall be used. Distillery waste or any substance in an advanced or injurious state of putrefaction must not be fed to cows.

Regulation 43. Hay not to be fed during milking.—No hay or other dry fodder shall be fed to cows during milking or immediately prior thereto.

Regulation 44. Bedding of cows.—The cows shall be bedded with some clean material, preferably straw, sawdust, or shavings, and the bedding shall be renewed each day.

Regulation 45. Milk from diseased cows.—Milk from diseased cows, and milk which has been polluted with fecal matter, must be immediately destroyed.

Regulation 46. Milking stools to be used.—Milking stools shall be constructed of metal having a smooth surface and must be kept clean at all times.

Regulation 47. Milk to be immediately cooled.—All milk as soon as drawn must be immediately removed to the milk house and strained. All milk must be cooled to at least 50 degrees F. within two hours of its production and maintained at or below such temperature until delivered to the consumer.

ADDITIONAL REGULATIONS GOVERNING THE PRODUCTION OF MILK OUTSIDE THE CITY OF NEW YORK, AND SHIPPED FOR SALE TO THE CITY OF NEW YORK.

Regulation 50. Cows to be kept clean.—The cows shall be kept clean, and manure must not be permitted to collect upon the tail, sides, udder and belly.

Regulation 51. Cows to be groomed daily.—The cows shall be groomed daily, and all collections of manure, mud or other filth must not be allowed to remain upon their flanks, udders or bellies during milking.

Regulation 52. Clipping of long hairs from udder and flanks required.—The clipping of long hairs from the udder and flanks of the cows is of assistance in preventing the collection of filth which may drop into the milk. The hair on the tails shall be cut, so that the brush will be well above the ground.

Regulation 53. Udder and teats to be cleaned before milking.—The udders and teats of the cow shall be thoroughly cleaned before milking; this to be done by thorough brushing and the use of a cloth and warm water.

Regulation 54. Throat latch to be provided.—To prevent the cows from lying down and getting dirty between cleaning and milking, a throat latch of rope or chain shall be fastened across the stanchions under the cow's neck.

Regulation 55. Only feed of good quality to be used.—Only feed which is of good quality, and only grain and coarse fodders which are free from dirt and mould shall be used. Distillery waste or any substance in the state of fermentation or putrefaction must not be fed to cows.

Regulation 56. Cows not in good flesh and condition to be removed from herd.—Cows which are not in good flesh and condition shall be immediately removed and their milk kept separate until their health has been passed upon by a veterinarian.

Regulation 57. Examination by veterinarian to be made annually.—An examination by a licensed veterinary surgeon shall be made at least once a year.

Regulation 58. No stagnant water, hogpen, privy, etc., to be located within 100 feet of cow stable.—No stagnant water, hogpen, privy, or uncovered cesspool or manure pit shall be maintained within 100 feet of the cow stable.

Regulation 59. Adequate ventilation to be provided.—The cow stable shall be provided with some adequate means of ventilation, either by the construction of sufficient air chutes extending from the room in which the cows are kept to the outside air, or by the installation of muslin stretched over the window openings.

Regulation 60. Window light.—Windows shall be installed in the cow barn to provide sufficient light (2 sq. ft. of window light to each 600 cu. ft. of air space the minimum) and the panes be washed and kept clean.

Regulation 61. Air space for each cow.—There shall be at least 600 cubic feet of air space for each cow.

Regulation 62. Milch cows to be kept in place used for no other purpose.—Milch cows shall be kept in a place which is used for no other purpose.

Regulation 63. Construction of floors.—Stable floors shall be made watertight, be properly graded and well-drained, and be of some non-absorbent material.

Regulation 64. Feeding troughs and platforms to be lighted and kept clean.—The feeding troughs and platforms shall be well lighted and kept clean at all times.

Regulations 65. Ceiling to be kept free from dirt, cobwebs and straw.—The ceiling shall be thoroughly swept down and kept free from hanging straw, dirt and cobwebs.

Regulation 66. Construction of ceilings.—The ceiling must be so constructed that dust and dirt therefrom shall not readily fall to the floor or into the milk. If the space over the cows is used for storage of hay, the ceiling shall be made tight to prevent chaff and dust from falling through.

Regulation 67. Walls and ledge to be kept free from dirt, manure and cobwebs.—The walls and ledges shall be thoroughly swept down and kept free from dust, dirt, manure, or cobwebs, and the floors and premises be kept free from dirt, rubbish and decayed animal or vegetable matter at all times.

Regulation 68. Cow beds to be kept clean.—The cow beds shall be so graded and kept that they will be clean and sanitary at all times.

Regulation 69. Stable to be whitewashed twice a year.—Stables shall be whitewashed at least twice a year unless the walls are painted or are of smooth cement.

Regulation 70. Manure to be removed twice daily.—Manure must be removed from the stalls and gutters at least twice daily. This must not be done during milking, nor within one hour prior thereto.

Regulation 71. Manure not to be stored within 200 feet of stable.—Manure shall be taken from the barn, preferably drawn to the field. When the weather is such that this cannot be done, it should be stored no nearer than 200 feet from the stable and the manure pile should be so located that the cows cannot get at it.

Regulation 72. Disposal of liquid matter.—The liquid matter shall be absorbed and removed daily and at no time be allowed to overflow or saturate the ground under or around the cow barn.

Regulation 73. Construction of manure gutters.—Manure gutters shall be from six to eight inches deep, and constructed of concrete, stone or some non-absorbent material.

Regulation 74. Use of land plaster or lime recommended.—The use of land plaster or lime is recommended upon the floors and gutters.

Regulation 75. Character of bedding to be used.—Only bedding which is clean, dry and absorbent shall be used, preferably sawdust, shavings, dried leaves or straw. No horse manure should be used as bedding.

Regulation 76. Construction of flooring.—The flooring where the cows stand shall be so constructed that all manure may drop into the gutter and not upon the floor itself.

Regulation 77. Floor not to be swept prior to milking cows.—The floor shall be swept daily. This must be done one hour prior to milking time.

Regulation 78. Drinking basin for cows to be kept clean.—If individual drinking basins are used for the cows they should be frequently drained and cleaned.

Regulation 79. Live stock other than cows to be excluded from stable where milch cows are kept.—All livestock other than cows shall be excluded from the room in which milch cows are kept. (Calf or bull pens may be allowed in the same room if kept in the same clean and sanitary manner as the cow beds.)

Regulation 80. Barnyard to be cleaned.—The barnyard shall be well drained and dry, and should be as much sheltered as possible from the wind and cold. Manure should not be allowed to collect therein.

Regulation 81. Separate quarters to be provided for sick cows.—A suitable place in some separate building shall be provided for the use of the cows when sick, and separate quarters must be provided for cows when calving.

Regulation 82. Silo or grain pit not to open directly into stable.—There shall be no direct opening from any silo or grain pit into the room in which the milch cows are kept.

Regulation 83. Milk house to be provided.—A milk house must be provided which is separated from the stable and dwelling. It shall be located on elevated ground, with no hogpen, privy, or manure pile within 100 feet.

Regulation 84. Milk house to be kept clean.—Milk house must be kept clean and not used for any purpose except the handling of milk.

Regulation 85. Floor of milk house to be properly graded and water-tight.—Milk house shall be provided with sufficient light and ventilation, with floors properly graded and made water-tight.

Regulation 86. Milk house to be lighted and ventilated.—Milk house shall be provided with adjustable sashes to furnish sufficient light and some proper method of ventilation shall be installed.

Regulation 87. Size of milk house.—The milk house shall be provided with an ample supply of clean water for cooling the milk, and if it is not a running supply, the water should be changed twice daily. Also a supply of clean ice should be provided to be used for cooling the milk to 50 degrees within two hours after milking.

Regulation 88. Storing of empty cans.—Suitable means shall be provided within the milk house, to expose the milk pails, cans and utensils to the sun or to live steam.

Regulation 89. Washing facilities for milkers to be provided.—Facilities consisting of wash basins, soap and towel shall be provided for the use of milkers before and during milking. During the summer months the milk house should be properly screened to exclude flies.

Regulation 90. Health of employees.—Any person having any communicable or infectious disease, or one caring for persons having such diseases, must not be allowed to handle the milk or milk utensils.

Regulation 91. Milkers to clean hands before milking.—The hands of the milkers must be thoroughly washed with soap and water, and carefully dried on a clean towel before milking.

Regulation 92. Clothing to be worn during milking.—Clean overalls and jumpers shall be worn during the milking of cows. They should be used for no other purposes, and when not in use should be kept in a clean place protected from dust.

Regulation 93. Milking with wet hands condemned.—The hands and teats shall be kept dry during milking. The practice of moistening the hands with milk is to be condemned.

Regulation 94. Milking stools to be kept clean.—The milking stools shall be at all times kept clean, and iron stools are recommended.

Regulation 95. Fore milk to be rejected.—The first streams from each teat shall be rejected, as this fore milk contains more bacteria than the rest of the milk.

Regulation 96. Milk drawn from cows 15 days before or 5 days after parturition to be rejected.—All milk drawn from cows 15 days before, or 5 days after parturition shall be rejected.

Regulation 97. Small-mouth milking pail to be used.—The pails in which the milk is drawn should have as small an opening at the top as can be used in milking; top opening preferably not to exceed 8 inches in diameter. This lessens the contamination by dust and dirt during milking.

Regulation 98. Milking to be done rapidly.—The milking should be done rapidly and quietly and the cows should be treated kindly.

Regulation 99. Feeding just prior to milking prohibited.—Dry fodder should not be fed to the cows during or just before milking, as dust therefrom may fall into the milk.

Regulation 100. Milk utensils to be kept clean and in good repair.—All milk utensils, including pails, cans, strainers, and dippers, must be kept thoroughly clean and must be washed and scalded after each using, and all seams in these utensils should be cleaned, scraped and soldered flush.

Regulation 101. Shipment of milk from diseased cows prohibited.—Milk from diseased cows must not be shipped.

Regulation 102. Adulteration prohibited.—The milk must not be in any way adulterated.

Regulation 103. Milk to be immediately strained and cooled.—The milk as soon as drawn shall be removed to the milk house and immediately strained and cooled to the proper temperature.

Regulation 104. Milk to be cooled below 50 degrees F. within two hours after milking.—All milk must be cooled to a temperature below 50 degrees F. within two hours after being drawn, and kept thereafter below that until delivered to the creamery.

Regulation 105. Straining of milk.—The milk shall be strained into cans which are standing in ice water which reaches the neck of the can. The more rapidly the milk is cooled, the safer it is, and longer it will keep sweet. Ice should be used in cooling milk, as very few springs are cold enough for the purpose.

Regulation 106. Use of aerators.—If aerators are used, they shall stand where the air is free from dust or odors, and on no account should they be used in a stable, or out of doors.

Regulation 107. Cleaning of milk strainers.—Milk strainers shall be kept clean, scalded a second time just before using, and if cloth strainers are used, several of them should be provided in order that they may be frequently changed during the straining of the milk.

Regulation 108. Use of preservatives or coloring matter prohibited.—The use of any preservative or coloring matter is adulteration, and its use by a producer or shipper will be sufficient cause for the exclusion of his product from the city of New York.

Regulation 109. Water.—The water supply used in the dairy and for washing utensils should be absolutely free from any contamination, sufficiently abundant for all purposes, and easy of access.

Regulation 110. Protection of water supply.—The water supply shall be protected against flood or surface drainage.

Regulation 111. Location of privy.—The privy shall be located not nearer than 100 feet of the source of the water supply, or else be provided with a watertight box that can be readily removed and cleaned, and so constructed that at no time will the contents overflow or saturate the surrounding ground.

Regulation 112. Source of water supply.—The source of the water supply shall be rendered safe against contamination by having no stable, barnyard, pile of manure or other source of contamination located within 200 feet of it.

REGULATIONS GOVERNING THE SALE OF GRADE "A" MILK OR CREAM (raw).

Definition.—Grade "A" milk or cream (raw) is milk or cream produced and handled in accordance with the Regulations as herein set forth.

Regulation 113. Tuberculin test and physical condition.—Only such animals shall be admitted to the herd as are in good physical condition, as shown by a thorough physical examination accompanied by a test with the diagnostic injection of tuberculin, within a period of one month previous to such admission. The test is to be carried out as prescribed in the Regulations of the Department of Health governing the tuberculin testing of cattle. A chart recording the result of the official test must be in the possession of the Department of Health before the admission of any animal to the herd.

Regulation 114. Bacterial contents.—Grade "A" milk (raw) shall not contain more than 60,000 bacteria per c. c. and cream more than 300,000 bacteria per c. c. when delivered to the consumer or at any time prior to such delivery.

Regulation 115. Scoring of dairies.—All dairies producing milk of this designation shall score at least 25 points on equipment and 50 points on methods, or a total score of 75 points on an official dairy score card approved by the Department of Health.

Regulation 116. Time of delivery.—Milk of this designation shall be delivered to the consumer within 36 hours after production.

Regulation 117. Bottling.—Milk or cream of this designation shall be delivered to the consumer only in bottles, unless otherwise specified in the permit.

Regulation 118. Labelling.—The caps of all bottles containing Grade "A" milk or cream (raw) shall be white, with the grade and designation "Grade A (raw)," the name and address of the dealer, and the word "Certified," when authorized by the State law, clearly, legibly, and conspicuously displayed on the outer side thereof. No other word, statement, design, mark, or device shall appear on that part of the outer cap containing the grade and the designation unless authorized and permitted by the Department of Health. A proof print or sketch of such cap, showing the size and arrangement of the lettering thereon, shall be submitted to and approved by the said Department before being attached to any bottle containing milk or cream of the said grade and designation.

ADDITIONAL REGULATIONS GOVERNING THE SALE OF GRADE "A" MILK OR CREAM (Pasteurized).

Definition.—Grade "A" milk or cream (Pasteurized) is milk or cream handled and sold by dealers holding permits therefor from the Board of Health, and produced and handled in accordance with the Regulations as herein set forth.

Regulation 119. Physical examination of cows.—All cows producing milk or cream of this designation must be healthy, as determined by a physical examination made annually by a duly licensed veterinarian.

Regulation 120. Bacterial content.—Milk of this designation shall not contain more than 30,000 bacteria per c. c. and cream more than 150,000 bacteria per c. c. when delivered to the consumer or at any time after pasteurization and prior to such delivery. No milk supply averaging more than 200,000 bacteria per c. c. shall be pasteurized to be sold under this designation.

Regulation 121. Scoring of dairies.—All dairies producing milk or cream of this designation shall score at least 25 points on equipment and 43 points on methods, or a total score of 68 points on an official score card approved by the Department of Health.

Regulation 122. Times of delivery.—Milk or cream of this designation shall be delivered within 36 hours after pasteurization.

Regulation 123. Bottling.—Milk or cream of this designation shall be delivered to the consumer only in bottles unless otherwise specified.

Regulation 124. Bottles only.—The caps of all bottles containing Grade "A" milk or cream (pasteurized) shall be white with the grade and designation "Grade A (pasteurized)," the name and address of the dealer, the date and hours between which pasteurization was completed, and the place where pasteurization was performed, clearly, legibly, and conspicuously displayed on the outer side thereof. No other word, statement, design, mark, or device shall appear on that part of the outer cap containing the grade and designation, unless authorized and permitted by the Department of Health. A proof print or sketch of such cap, showing the size and arrangement of

the lettering thereon, shall be submitted to and approved by the said Department before being attached to the bottles containing milk of the said grade and designation. No other words, statement, design, or device shall appear upon the outer cap unless approved by the Department of Health. The size and arrangement of lettering on such cap must be approved by the Department of Health.

Regulation 125. Pasteurization.—Only such milk or cream shall be regarded as pasteurized as has been subjected to a temperature of from 142 to 145 degrees F. for not less than thirty minutes.

ADDITIONAL REGULATIONS GOVERNING THE SALE OF GRADE "B" MILK OR CREAM (Pasteurized).

Definition.—Grade "B" milk or cream (pasteurized) is milk or cream produced and handled in accordance with the minimum requirements of the Regulations herein set forth and which has been pasteurized in accordance with the Regulations of the Department of Health for pasteurization.

Regulation 128. Physical examination of cows.—All cows producing milk or cream of this designation must be healthy as determined by a physical examination made and approved by a duly licensed veterinarian.

Regulation 129. Bacterial contents.—No milk under this designation shall contain more than 100,000 bacteria per c. c. and no cream shall contain more than 500,000 bacteria per c. c. when delivered to the consumer, or at any time after pasteurization and prior to such delivery. No milk supply averaging more than 1,500,000 bacteria per c. c. shall be pasteurized in this city under this designation. No milk supply averaging more than 300,000 bacteria per c. c. shall be pasteurized outside the city of New York to be sold in said city under this designation.

Regulation 130. Scoring of dairies.—Dairies producing milk or cream of this designation shall score at least 20 points on equipment and 35 points on methods, or a total score of 55 points on an official score card approved by the Department of Health.

Regulation 131. Time of delivery.—Milk of this designation shall be delivered within 36 hours. Cream shall be delivered within seventy-two (72) hours after pasteurization. Cream intended for manufacturing purposes may be stored in cold storage and held thereat in bulk at a temperature not higher than 32 degrees F. for a period conforming with the laws of the State of New York. Such cream shall be delivered in containers, other than bottles, within twenty-four (24) hours after removal from cold storage and shall be used only in the manufacture of products in which cooking is required.

Regulation 132. Bottling.—Milk of this designation may be delivered in cans or bottles.

Regulation 133. Labelling.—The caps of all bottles containing Grade "B" milk (pasteurized) and the tags attached to all cans containing Grade "B" milk or cream (pasteurized) shall be white with the grade and designation "Grade B (pasteurized)," the name and address of the dealer, and the date when and place where pasteurization was performed, clearly, legibly, and

conspicuously displayed on the outer side thereof. The caps of all bottles containing Grade "B" cream (pasteurized) shall be white with the grade and designation "Grade B Cream (pasteurized)," the name and address of the dealer, and the date when and the place where bottled, clearly, legibly, and conspicuously displayed on the outer side thereof. No other word, statement, design, mark, or device shall appear on that part of the outer cap or tag containing the grade and designation unless authorized and permitted by the Department of Health. A proof print or sketch of such cap or tag, showing the size and arrangement of the lettering thereon shall be submitted to and approved by the said Department before being attached to any receptacle containing milk or cream of the said grade and designation.

Regulation 134. Pasteurization.—Only such milk or cream shall be regarded as pasteurized as has been subjected to a temperature of from 142 to 145 degrees F. for not less than thirty minutes.

ADDITIONAL REGULATIONS GOVERNING THE SALE OF GRADE "C" MILK OR CREAM (PASTEURIZED) (FOR COOKING and MANUFACTURING PURPOSES ONLY).

Definition.—Grade "C" milk or cream is milk or cream not conforming to the requirements of any of the subdivisions of Grade "A" or Grade "B" and which has been pasteurized according to the Regulations of the Board of Health or boiled for at least two minutes.

Regulation 136. Physical examination of cows.—All cows producing milk or cream of this designation must be healthy, as determined by a physical examination made by a duly licensed veterinarian.

Regulation 137. Bacterial content.—No milk of this designation shall contain more than 300,000 bacteria per c. c. and no cream of this grade shall contain more than 1,500,000 bacteria per c. c. after pasteurization.

Regulation 138. Scoring of dairies.—Dairies producing milk or cream of this designation must score at least 40 points on an official score card approved by the Department of Health.

Regulation 139. Time of delivery.—Milk or cream of this designation shall be delivered within 72 hours after pasteurization.

Regulation 140. Bottling.—Milk or cream of this designation shall be delivered in cans only.

Regulation 141. Labelling.—The tags attached to all cans containing Grade "C" milk (for cooking) shall be white with the grade and designation "Grade C Milk (for cooking)," the name and address of the dealer, and the date when and place where pasteurization was performed, clearly, legibly, and conspicuously displayed thereon. No other word, statement, design, mark, or device shall appear on that part of the tag containing the grade and designation, unless authorized and permitted by the Department of Health. A proof print or sketch of such tag, showing the size and arrangement of the lettering thereon shall be submitted to and approved by the said Department before being attached to the cans containing milk of the said grade and designation. The cans shall have properly sealed metal covers painted red.

Regulation 142. Pasteurization.—Only such milk or cream shall be regarded as pasteurized as has been subjected to a temperature of 145 degrees, for not less than thirty minutes.

ADDITIONAL REGULATIONS GOVERNING THE SALE OF CONDENSED SKIMMED MILK.

Definition.—Condensed skimmed milk is condensed milk in which the butter fat is less than twenty-five (25) per cent. of the total milk solids.

Regulation 145. Cans to be painted blue.—The cans containing condensed skimmed milk shall be colored a bright blue and shall bear the words "Condensed Skimmed Milk" in block letters at least two inches high and two inches wide, with a space of at least one-half inch between any two letters. The milk shall be delivered to the person to whom sold, in can or cans, as required in this regulation excepting when sold in hermetically sealed cans.

ADDITIONAL REGULATIONS GOVERNING THE LABELLING OF MILK OR CREAM BROUGHT INTO, DELIVERED, OFFERED FOR SALE AND SOLD IN NEW YORK CITY.

Regulation 146. Labelling of milk or cream.—Each container or receptacle used for bringing milk or cream into or delivering it in the City of New York shall bear a tag or label stating, if shipped from a creamery or dairy, the location of the said creamery or dairy, the date of shipment, the name of the dealer, and the grade of the product contained therein, except as elsewhere provided for delivery of cream in bottles.

Regulation 147. Labelling of milk or cream to be pasteurized.—All milk or cream brought into the city of New York to be pasteurized shall have a tag affixed to each and every can or other receptacle indicating the place of shipment, date of shipment, and the words "to be pasteurized at (stating location of pasteurizing plants)."

Regulation 148. Mislabelling of milk or cream.—Milk or cream of one grade or designation shall not be held, kept, offered for sale, sold, or labelled as milk or cream of a higher grade or designation.

Regulation 149. Word, statement, design, mark or device on label.—No word, statement, design, mark, or device regarding the milk or cream shall appear on any cap or tag attached to any bottle, can, or other receptacles containing milk or cream which words, statement, design, mark, or device is false or misleading in any particular.

Regulation 150. Tags to be saved.—As soon as the contents of such container or receptacle are sold, or before the said container is returned or otherwise disposed of, or leaves the possession of the dealer, the tag thereon shall be removed and kept on file in the store, where such milk or cream has been sold, for a period of two months thereafter, for inspection by the Department of Health.

Regulation 151. Record of milk or cream delivered.—Every wholesale dealer in the city of New York shall keep a record in his main office in the said city, which shall show from which place or places milk or cream,

delivered by him daily to retail stores in the city of New York, has been received and to whom delivered, and the said record shall be kept for a period of two months, for inspection by the Department of Health, and shall be readily accessible to the inspectors of the said Department at all times.

REGULATIONS GOVERNING THE MAINTENANCE AND OPERATION OF CREAMERIES, RECEIVING STATIONS AND PASTEURIZING PLANTS. CONSTRUCTION.

1. Sufficient light and ventilation to be provided.—All rooms in which milk or cream is pasteurized or otherwise handled, and in which utensils, apparatus and containers are washed, must be properly lighted and provided with suitable ventilation. Vent pipes extending above the roof should be installed for carrying away excess steam.

2. Construction of floor.—Floors of all rooms must be constructed of concrete or some equally non-absorbent material. They must be watertight and so graded that all drainage will flow toward one or more points of discharge.

3. Drainage.—All drains must be suitably trapped, and drainage when not discharged into city sewers, must be disposed of into cesspools, septic tanks, running brooks or creeks, or conveyed by drains to a point at least 500 feet from the building.

4. Construction of walls and ceilings.—Walls and ceilings, unless constructed of concrete, smooth brick or tile, must be sheathed, dusttight, and painted with a light-colored paint.

5. Doors and windows to be screened.—All outside doors and windows must be screened against flies from May 1 to October 31.

6. Doors to be provided with self-closing device.—All doors must be provided with self-closing devices.

7. Toilet facilities to be provided. Location of privies.—Suitable toilet facilities must be provided for the use of employees, but no watercloset shall communicate directly with any rooms used for handling milk or cream, or with any room in which utensils are washed. Privies or earth closets must be situated at least 100 feet from the building and must have fly-proof vaults. Seat covers must be self-closing.

8. Rooms to be used in receiving and dumping milk.—Milk must be received and dumped in rooms used for no other milk handling.

9. Rooms to be used for washing containers.—The washing of containers should not be conducted in rooms in which milk or cream is handled. If such washing is done in the same rooms, it must not be carried on during the period of milk handling.

10. Milk or cream not to be handled in room used for living purposes.—No stable and no room used for living or domestic purposes shall communicate directly with any room in which milk or cream is handled or in which utensils are washed.

11. Water supply.—An adequate supply of pure running water must be provided.

EQUIPMENT.

12. Construction of apparatus.—All weigh cans, storage vats, mixing vats, and other apparatus must be constructed of suitable metal, preferably of tinned copper, all angles and joints being smoothly soldered. They must be provided with closely fitting metal covers of similar material.

13. Construction of pipes and pumps.—All milk pipes and pumps must be of sanitary construction and so arranged that they may be easily taken apart for cleaning. The use of tightly soldered elbow joints is prohibited.

14. Arrangement of piping when continuous holder is used.—If a continuous type of milk or cream pasteurizing holder is provided, which consists of a series of tanks, the piping must be so arranged that the lower tank is filled first.

15. Automatic temperature recording devices to be provided.—At every milk or cream pasteurizing plant, automatic temperature recording devices must be installed which will indicate the temperature to which the milk or cream has been heated, the time at which such heating has been performed, and, if possible, the length of time for which the milk or cream is held at the required temperature.

16. Location of temperature recorder.—The temperature recorder must be attached at the highest point of the outlet from a continuous holder. If an absolute holder is used, the recorder must be so attached as to show the temperature and the time of holding.

17. Washing facilities for cans and bottles to be provided.—Suitable facilities must be provided for washing, rinsing in cold water, and sterilizing cans and bottles used for pasteurizing milk or cream.

18. Racks or can dryers must be provided.—Racks, constructed preferably of metal, must be provided for the storage of washed cans in an inverted position until filled, unless dryers are employed during the sterilizing of cans and can covers.

19. Washed bottles to be inverted.—All washed bottles must be stored in an inverted position until filled, or must be so protected as to prevent contamination.

20. Surface coolers to be protected.—Surface coolers must be provided with suitable metal covers unless located in a room used for no other purpose.

21. Bottling of milk.—No milk shall be bottled unless the process be so conducted as to preclude its contamination.

METHODS.

22. Rooms to be kept clean. Smoking and spitting prohibited.—All rooms and surrounding premises must be maintained in a cleanly and sanitary condition. Smoking and spitting within the building must be prohibited.

23. Water and steam pipes to be painted.—All water and steam pipes must be kept free from rust and dirt and must be painted.

24. Oil cup or pan to be provided under bearings for shafting.—All bearings for shafting must be provided with suitable oil cups or pans.

25. Bottle caps before use to be protected.—Bottle caps must be protected from contamination until used.

26. Garments worn by employees.—Clean, washable outer garments must be worn by employees while handling milk or cream.

27. Milk or cream to be cooled within 30 minutes after pasteurization.— All milk or cream must be cooled after pasteurization to a temperature of 50 degrees or less within 30 minutes.

28. Apparatus to be cleaned and sterilized immediately after use.— All apparatus used for handling milk or cream must be thoroughly cleaned and sterilized immediately after use. All apparatus used in the pasteurizing of milk and cream must be sterilized immediately before the process is commenced.

29. Temperature records to be made daily and kept on file.— Temperature records must be made daily and be kept on file as long as required by the Department of Health.

30. Milk or cream to be regarded as pasteurized to be subjected to temperature of 142-145 degrees for not less than 30 minutes.— Only such milk or cream shall be regarded as pasteurized as has been subjected to a temperature of 142-145 degrees for not less than 30 minutes.

GENERAL.

31. Containers to be tagged or labeled.— All containers in which pasteurized milk or cream is delivered shall be plainly tagged or labeled "Pasteurized" and the said tags or labels shall be marked in accordance with rules set forth for each grade.

32. Only pasteurized milk or cream conforming to regulations to be sold.— Milk or cream which has been heated in any degree will not be permitted to be sold in the city of New York unless the heating conforms with the regulations of the Department of Health for the pasteurization of milk or cream.

33. Apparatus to be approved.—Permits will not be granted to pasteurize milk or cream unless all apparatus connected with said pasteurizing has been approved by the Department of Health.

34. Permits to pasteurize required.— No milk or cream shall be sold, held, kept and offered for sale in the city of New York as "Pasteurized" unless said milk or cream has been pasteurized under permit from the Board of Health in conformity with the rules and regulations thereof.

35. Milk or cream not to be pasteurized a second time.— No milk or cream shall be pasteurized a second time.

36. Pasteurized milk to be bottled at place of pasteurization.— Pasteurized milk shall not be held, kept, offered for sale, or sold in bottles unless such milk has been bottled at the place of pasteurization.

37. Room and apparatus used for the pasteurization of Grade A milk.— Milk or cream shall not be received in any room or apparatus where Grade A pasteurized milk or cream is handled and treated, unless the said milk or cream complies with the Regulations for Grade A pasteurized milk.

REGULATIONS GOVERNING THE TUBERCULIN TESTING OF CATTLE.

Regulation 1. Manner of testing.— In the case of any herd which is found, when tested in accordance with these regulations, to be free from tuberculosis, the next general test of the herd shall be made within twelve (12) months. Any herd in which one or more reactors shall have been found, shall be

retested with tuberculin within six (6) months, and every reacting animal shall be excluded from the herd. Tuberculin tests shall be made as follows:

During the ten (10) hours before injection, four (4) pre-injection temperatures shall be taken at intervals of three (3) hours. The first post-injection temperature shall be taken not later than six (6) hours after injection; thereafter temperature shall be taken at intervals of two (2) hours, continuing for not less than twenty-four (24) hours after injection.

Regulation 2. Herds to be retested.—If more than ten per cent. (10%) of the herd react to the tuberculin test, the entire herd shall be retested with tuberculin upon the expiration of ninety (90) days and each animal so retested shall receive a double dose of tuberculin at this test.

Regulation 3. Reactions and suspicious reactions.—A rise of 2 degrees over the highest pre-injection temperature shall be considered a reaction, provided such rise of temperature cannot be shown to be due to some other cause. A rise of $1\frac{1}{2}$ degrees F. in which there are consecutive temperatures above the normal extending over three (3) or more intervals, shall be considered a suspicious reaction, and an animal having so reacted shall be removed from the herd. The interpretation of the "temperature curve" shall be left to the discretion of the veterinarian making the test subject to the approval of the Department of Health, provided, however, that such veterinarian shall be a legally licensed veterinarian whose tests are acceptable to the Department of Agriculture of the State of New York. A full report of the test shall be made on a chart approved by the Department of Health, which chart shall state the kind and quality of tuberculin used in each test, the dates and hours at which temperatures were taken, a description of the animals tested, and the numbers of the tags attached to the same, and said report shall be duly signed by the veterinarian making the test and submitted to the Department of Health, and by the Department of Health placed on file for inspection and record.

REGULATIONS GOVERNING THE USE OF A DIRT TESTER.

Regulation 1. Dirt tester.—A dirt tester approved by the Department of Health of the city of New York, must be used in all creameries shipping milk to the city of New York.

Regulation 2. Milk to be tested.—All milk received at any creamery shipping milk as aforesaid must be tested thereat by the person having the management and control of such creamery, at least once a week, the results of such test to be posted in a conspicuous place in the creamery and duplicates of such test forwarded to the Department of Health at the end of each month.

Regulation 3. Standard for test.—A photograph or gauge established by the Board of Health of the city of New York must be used as a standard in the creameries herein referred to in determining whether milk contains excessive dirt.

Regulation 4. Milk below standard.—Where the maximum of dirt, according to the standard is shown to habitually exist in milk officially tested by the Department of Health, at any creamery, it will constitute sufficient cause to either rate the milk as Grade C, or to exclude such milk from sale within the city of New York.

ROYAL COMMISSION ON MILK
1916

REPORT

OF

NATIONAL COMMISSION ON MILK STANDARDS

1916

[715]

REPORT OF NATIONAL COMMISSION ON MILK STANDARDS, 1916

The whole subject of milk standards is reviewed by the National Commission on Milk Standards in its last report which has not yet been given to the press. This report gives the history of the movement on the part of health officers and public bodies interested in the milk supply. A proper understanding of the dairy problems of the State cannot be had without considering and understanding the forces which operate directly upon the dairymen through health regulations. It also indicates the trend of future health regulations which the dairymen must be expected to meet. In order that this report may convey such information to the Legislature and the dairymen of the State, it is thought best to include that part bearing on these subjects.

REPORT OF NATIONAL COMMISSION ON MILK STANDARDS, 1916

November 3, 1916.

PREAMBLE

Purposes of Milk Standards

Proper milk standards are essential to efficient milk control by public health authorities. In the first place health authorities must ascertain that the chemical composition corresponds with established definitions of milk as food. But their more important duty is to prevent the transmission of disease. This means the prevention of the transmission by milk of infant diarrhoea, typhoid fever, tuberculosis, septic throat infections, scarlet fever, diphtheria, and other infectious diseases. In the interests of milk consumers public health authorities must take positive action to prevent the transmission of any of these diseases, in addition to their duty of preserving the food value of milk.

The *milk producer* is interested in proper standards for milk, and should support a movement to secure proper standards, for the reason that these contribute to the well being and dignity of the milk industry itself. Proper standards, rightly enforced, distinguish between the good milk producer and the bad milk producer. This inevitably will lead to the improvement of dairy farming, and eventually to an increase in the financial prosperity of the milk producer himself through better prices for better milk. It will thus enable the producer to get properly paid for the quality of milk he produces, and thus put that industry for the first time upon a dependable basis.

The *milk dealer* is immediately classified by milk standards into a seller of first class milk or a seller of second class milk, and such distinction gives to the seller of first class milk a commercial reward which he deserves, while it discriminates justly against the seller of second class milk.

For *milk consumers* the settling of definite standards accompanied by labeling with official control of the labels makes it possible to know the character of the milk which is purchased, and to distinguish good milk from bad milk. The establishment of

standards for quality, and of labels on retail packages indicating the quality, compels the industry not only to purchase milk on a quality basis, but also to sell milk on a quality basis. The selling of milk strictly on a quality basis, which includes not only chemical composition, but sanitary character, makes it possible for the consumers by an inspection of the label to intelligently select milk which in quality and price is most suitable for their needs.

Administrative Equipment

Standards are useless unless properly guarded and enforced. The chief objection that has been raised to a grading system for milk is the difficulty of ensuring that milk labeled as of a certain grade is actually of that grade when sold to the consumer.

The prime requisite for efficient milk control is that health departments shall be adequately equipped with men, money and laboratory facilities. The commission is of the opinion that satisfactory results cannot be expected from laws when there is not sufficient appropriation, and when there is no machinery for their enforcement. A survey of the money appropriated for milk control shows that in the majority of municipalities this is entirely insufficient for public needs.

The key to the solution of the problem of the proper use of grade labels is the laboratory. The establishment and operation of an efficient milk testing laboratory is commonly supposed to be an item of great expense. This, however, the commission is convinced, is a mistake, since there are numerous laboratories scattered all over the land not only private, but public, which are inexpensive and operated at low cost. By efficiency methods a large number of tests can be made at a very low cost. Even small communities can afford to maintain and operate such laboratories. Where for any reason it is not possible to do this, it has proven to be practicable for one community to enter into laboratory arrangements with another, and even several can combine in the use of a common laboratory.

Grading of Milk

There is no escape from the conclusion that milk on the market must be graded, just as other commodities such as wheat, grain, beef, etc., are graded. The milk merchant must judge not only

of the food value, but also of the sanitary characteristics of the commodity in which he deals. There is no good reason for believing that fruit beginning to decay is particularly unhealthful, but it should not be sold on a par with sound fruit. Small apples have as much food value as an equal quantity of large ones, but the latter properly command a higher price. So, too, with milk; the high-grade product, fresh and cold, will cost more to buy from the producer, and should sell for more to the consumer than does the low-grade product. The Commission's most important work has been the attempt to separate milk into grades and classes. The Commission has endeavored to make its grading system as simple as possible, and at the same time to distinguish between milks which are essentially different in their sanitary and other character. The Commission is convinced that the experience of the last three years has fully demonstrated the value of the grading system in the communities in which it has already been applied, both from a public health and an economic standpoint. The Commission believes that the grading of milk offers a satisfactory solution for most of the sanitary and economic problems which have hitherto prevented efficient milk control, and that it is feasible for small communities as well as large communities to adopt a grading system and to secure its benefits.

CHIEF SUBJECTS CONSIDERED

The Commission during its deliberations, over a period of five years and on the occasions of its eight meetings, and the numerous meetings of its subcommittees, has given attention to a great variety of subjects.

The more important conclusions it has reached are the following:

(1) CHEMICAL STANDARDS FOR MILK

The lack of uniformity in chemical standards used by different municipalities and States throughout the United States and Canada has led the Commission to believe that it is desirable for them to give expression to their opinion concerning proper chemical standards for milk. The Commission recognizes that chemical standards do not involve public health questions excepting in so far as they safeguard the food value of milk. Nevertheless, as milk is a food,

chemical standards are necessary for defining its nutritive value.

The chemical standards suggested are the work of a special committee, composed of chemists, which has carefully considered the natural composition of milk, as well as the Federal and State standards already established. The standard of 3.25 per cent fat and 8.5 per cent solids-not-fat, here proposed, is in accordance with the recommendations of the Association of Official Agricultural Chemists, and has been adopted by the United States Department of Agriculture, and by a larger number of States than has any other standard. (The word "standard" used in connection with milk is not intended to imply excellence, but simply to express the lowest possible standard or limit that the law permits for a pure or normal milk. The same meaning applies to the word used in connection with milk products.)

The Babcock test makes easily practicable the determination of fat and solids-not-fat in milk. Such examinations of milk can be readily adopted and executed by any health board laboratory at a very moderate expense. It is believed that such chemical standards as are suggested will help to raise the standards of dairying in this country, and that the provision regarding substandard milk is a liberal one.

Cow's Milk

Standard milk should contain not less than 8.5 per cent of solids-not-fat, and not less than 3.25 per cent of milk-fat.

Skim-milk

Standard skim-milk should contain not less than 8.75 per cent of milk-solids.

Cream

Standard cream should contain not less than 18 per cent of milk-fat, and should be free from all constituents foreign to normal milk. The percentage of milk-fat in cream over or under that standard should be stated on the label.

Adjusted Milks

On the question of milks and creams in which the ratio of the fat to the solids-not-fat has been changed by the addition to or subtraction of cream or milk-fat, the Commission has hesitated to

take a position. On the one hand they are in favor of every procedure which will increase the market for good milk and make the most profitable use of every portion of it. On the other, they recognize the sensitiveness of milk, the ease with which it is contaminated, and the difficulty of controlling such processes as standardizing, skimming, homogenizing, souring, adjusting, etc., so as to prevent contamination and the use of inferior materials. On this subject the Commission passed a resolution presented by a special committee, as follows:

“The Committee believes that it is probably necessary to admit standardized and adjusted milk. They believe that such manipulation should be controlled, and that such milk should be distinctly labeled as to its modifications.” “Milk in which the ratio of the fat to the solids-not-fat has been changed by the addition to or subtraction of cream should be labeled ‘adjusted milk;’ the label should show the minimum guaranteed percentage of fat and should comply with the same sanitary or chemical requirements as for milk not so standardized or modified.”

The Committee very carefully considered the subject of the agitation which has taken place regarding percentage of solids-not-fat due to the fact that in some large cities much of the milk contains less than 8.5 per cent solids-not-fat. While the Commission is disposed to admit that these conditions may exist, yet it believes that these conditions can be remedied, if not immediately, at least gradually. On the other hand, experience has shown that to lower the standard would in a few years result in the lowering of the general quality of the milk placed on the market, since commerce always tends to approach the minimum standard. The Commission therefore thinks it is unwise to reduce the standard for solids-not-fat below the percentage of 8.5. In those communities where such a standard cannot be rigidly enforced at the present time, the Commission suggests that the standard be gradually applied.

Regulation of Market Milk on Basis of Guaranteed Percentage Composition

(a) Sellers of milk should be permitted choice of one of two systems in handling market milk. They may sell milk; first, under the regular standard; or, second, under a guaranteed statement of composition.

(b) Any normal milk may be sold if its percentage of fat is stated. In case the percentage of fat is not stated, the sale should be regarded as illegal unless the milk contains at least 3.25 per cent of milk-fat.

(c) As a further protection to consumers, it is desirable that when the guaranty system is used, there be also a minimum guaranty of milk-solids, not fat, of not less than 8.5 per cent.

(d) Dealers electing to sell milk under the guaranty system should be required to state conspicuously the guaranty on all containers in which such milk is handled by the dealer or delivered to the consumer.

(e) The sale of milk on a guaranty system should be by special permission obtained from some proper local authority.

(2) BACTERIA AND BACTERIAL TESTING

Bacteria and bacterial testing have undoubtedly occupied more of the Commission's time than any other subject, this topic being considered at each of its meetings. Every phase of the relationship of bacteria to the sanitary character of milk, as well as to the infectious diseases transmissible by milk, has been discussed by the seven bacteriologists who are members of the Commission. The significance of bacteria in milk and methods of bacterial testing have been considered in detail, not only from the personal standpoint of the bacteriologist, but from the administrative standpoint of the eight health officers who are members of the Commission, as well as the two agricultural experts. Because of frequent conferences with members of the dairy industry, as well as a knowledge of the action taken by municipalities on this subject, it is believed that all phases of the relationship of bacteria to milk have been impartially considered

and that the conclusions reached fairly represent the place which bacterial testing should occupy.

The Commission recognizes that the number of bacteria in milk is controlled in the majority of instances by three factors; *dirt*, *temperature* or *age*. Only in the minority of instances are the bacteria of specific diseases present. The routine laboratory methods for examining milk have therefore as their chief purpose the control over dirt, temperature, and age. The difficulties of detecting the specific bacteria of disease by laboratory methods prevent laboratories from undertaking such detection as a routine. For this reason laboratory methods are as yet of little value in safeguarding milk against specific diseases. The only practical way for protecting milk from infection by the bacteria of infectious diseases is by medical, veterinary, and sanitary inspection, and by pasteurization. Nevertheless the Commission believes that large numbers of bacteria that are not specific disease germs have a health significance.

The routine laboratory methods for determining the total numbers of bacteria in milk are believed to furnish a general indication of the safety of milk. Small numbers indicate fresh milk produced under cleanly conditions, and kept cool, and such milk is safer than milk containing large numbers of bacteria which is either dirty, warm, or stale. In addition to this, the relation which large numbers of bacteria bear to the sanitary character of milk is shown by certain facts, among which the following are worthy of mention:

Relation of Large Numbers of Bacteria to Infant Mortality

The Commission believes that the numbers of bacteria in milk have a relation to the infant mortality, for the following reasons:

(a) Evidence furnished by clinical observations of groups of children fed on milk containing small numbers of bacteria and large numbers of bacteria shows a higher death rate in the latter than in the former.

(b) In general, a reduction in infant mortality in cities results from a substitution of milk containing small numbers of bacteria for milk containing large numbers of bacteria.

(c) Bacteria causing no specific intestinal infections in adults may cause infant diarrhoea, and milk containing large numbers

of bacteria more often contains species capable of setting up intestinal inflammation in infants than milk containing small numbers of bacteria.

Bacterial Counts and Decency

On this subject the Commission passed the following resolutions:

(a) Because high bacterial counts indicate milk is either warm, dirty, or stale, the bacterial count is an indicator of decency in milk character, entirely apart from its significance as an indicator of the safety of milk.

(b) In determining the sanitary character of milk and the grade in which it belongs, decency must be considered as desirable for its own sake, entirely apart from the consideration of safety. Decency is important as a characteristic of foods and drinks because it gives pleasure to the consumption of food, while the lack of decency means distaste, displeasure, and even disgust.

(c) The bacterial count is a sufficiently accurate measure of decency to justify the health officer in condemning milk with a high bacterial count because it is lacking in this characteristic.

Bacteriological Laboratory Testing of Milk

On the subject of laboratory examinations of milk for bacteria, the Commission believes that the interests of public health demand that the control of milk supplies, both as to production and distribution, should include regular laboratory examinations of milk by bacteriological methods. They stated by resolution that:

Among present available routine laboratory methods for determining the sanitary quality of milk, the bacterial count occupies first place, and that bacterial standards should be a factor in classifying milk of different degrees of excellence.

The adoption and enforcement of bacterial standards will be more effective than any other one thing in improving the sanitary character of public milk supplies. The enforcement of these standards can be carried out only by the regular and frequent laboratory examinations of milk for the numbers of bacteria it may contain.

It is of the utmost importance that standard methods should be adopted by all laboratories for comparing the bacterial

character of milks, since by this means only is it possible to grade and classify milks and properly enforce bacterial standards.

Concerning the methods which should be used by milk laboratories for determining the numbers of bacteria, the Commission unanimously resolved:

That there be adopted as standards for making the bacterial count the standard methods of the American Public Health Association Laboratory Section.

One of the chief objections raised against pasteurization is the claim that it is frequently employed to cover filthy methods, the milk producer using less care in his methods if he knows that the milk is to be subsequently pasteurized. To meet this objection the Commission believes there should be bacterial standards for raw milk as well as bacterial standards for pasteurized milk. In the case of pasteurized milk, standards should be required of the milk before pasteurization as well as after pasteurization.

Reliability of Bacterial Tests

The Commission has considered the numerous criticisms that have been raised as to the unreliability of bacteriological analysis, and has made extensive inquiry as to the force of these criticisms. An opinion concerning the reliability of laboratory tests for numbers of bacteria has been reached based on voluminous statistics secured for the most part by groups of observers working together, as well as by individuals. One of these researches alone carried out by members of the Commission in co-operation with others included the testing of over 20,000 samples of milk. In other instances repeatedly the same sample of milk was tested 100 times. Some variations in the analysis of duplicate samples are inevitable, due to the fact that the bacteria are not in solution but are floating in the milk, more or less clustered together in clumps, each of which will count only as a single colony. Under such conditions only an approximate agreement can be expected.

The results of extensive study justify the Commission in the conclusion that the analysis of duplicate samples of milk made by routine methods in different laboratories may be expected to show

an average variation of about 28 per cent, with occasional samples of wider variation. In some good laboratories the variation may not be greater than 10 per cent. Variations in results diminish with the number of samples analyzed. If five samples of the same milk are tested, the results may be relied upon as fairly accurate, and always sufficiently accurate to place any particular milk supply unhesitatingly in Grade A, B, or C. The object of bacterial tests of milk samples for the number of bacteria should be primarily to determine the sanitary character of the milk supply from which the sample is taken, rather than the character of a single sample of milk. *It is strongly urged by this Commission that no grading of milk should be made upon the analysis of single samples, and that no prosecutions or court cases should be brought upon the bacterial analysis of a single sample of milk.*

Interpretation of Bacterial Tests

The Commission has put its opinions on this subject in the form of resolutions, as follows:

WHEREAS, Milk is one of the most perishable foods, being extremely susceptible to contamination and decomposition, and

WHEREAS, The milk consumer is justified in demanding that milk should be clean, fresh and cold, in addition to having the element of safety, and

WHEREAS, Milk which is from healthy cows and is clean, fresh, and which has been kept cold, will always have a low bacterial count; and

WHEREAS, Milk that is dirty, stale, or has been left warm, will have a high bacterial count; therefore it is resolved:

First: That the health officer is justified in using the bacterial count as an indicator of the degree of care exercised by the producer and dealer in securing milk from healthy cows and in keeping the same clean, fresh and cold; and

Second: That the health officer is justified in condemning milk with a high bacterial count as being either unhealthy or decomposed, or containing dirt, filth, or the decomposed material as a result of the multiplication of bacteria due to age and temperature.

Third: That the health officer is justified in ruling that large numbers of bacteria are a source of possible danger, and that milk containing large numbers of bacteria is to be classed as unwholesome, unless it can be shown that the bacteria present are of harmless type, as for example, the lactic acid bacteria in buttermilk or other especially soured milks.

Grading by the bacterial count.

Concerning the number of tests which should be made in order to determine the grade of a milk supply, the Commission recommends that the grade into which a milk falls shall be determined bacteriologically by at least five consecutive bacterial counts, taken over a period of not less than one week, nor more than one month, and that at least four out of five of these counts (80%) must fall below the limit or standard set for the grade for which classification is desired.

The grading of milk has necessarily been based on its sanitary character, primarily as determined by the bacterial test. The enforcement of grading, therefore, requires the application of the bacterial test in a manner sufficiently comprehensive to fairly determine the sanitary character of milk so that it may be assigned to the grade in which it belongs. Such an administrative system greatly modified the former conception of milk inspection by public health officials. The inspection service under the grading system becomes subordinate to the bacterial laboratory, or at least must look to the bacterial laboratory as a guide. If bacterial tests are recognized as an indication of the sanitary character of milk, then the bacterial laboratory tests should precede the dairy inspection since they will point out to the dairy inspector the location of unsanitary milk. In the enforcement of the grading system, therefore, the milk inspection service should be reorganized in such a manner that the bacterial laboratory makes its tests first, in order to determine the sanitary character of the various milks offered for sale on the city market, and the inspection service then takes up the task of discovering the location and causes of the defects which the laboratory has discovered and remedying them. The laboratory service and inspection service consequently must be centralized under one head and their work thoroughly co-ordinated in order to give the greatest economy and efficiency.

Bacterial standards for cities of different sizes.

In establishing the bacterial standards for a city it is important to take into consideration the necessary age of the milk, the distance it is hauled, and the methods employed in its hauling, in addition to the sanitary condition of the milk at its source. It will always be possible for a community having very few dairies, easily controlled, which consumes milk produced within its own limits, or within transportation of twelve hours or less from the sources of supply, to insist upon and maintain a better bacterial standard than can a city where the milk is hauled many miles into town to be consumed within twenty-four hours after it is produced from numerous dairies difficult to control. The small city, for these reasons can and should always maintain a better bacterial standard than the large city.

Microscopic Examination

Under certain conditions the examination of milk for bacteria by the microscopic method serves a useful purpose. In its favor, it has the advantage of quick and immediate results which, in the hands of reliable workers, have proven to agree remarkably well with the results obtained by the plate method. At times it gives useful information as to the types of bacteria present. On the other hand, the microscopic method fails to distinguish between dead and living bacteria, and therefore its value in the examination of pasteurized milk is uncertain. Its chief value has been in securing quick information regarding the character of raw milk, and for this reason it is most useful at the producing and shipping end of the line rather than at the city end.

(3)

PASTEURIZATION

The pasteurization of milk has been discussed at every meeting held by the Commission. Its effect on bacteria, its effect on milk, its effect on public health, the questions of time and temperature and efficient control have all been repeatedly and carefully considered in detail. It is believed that the Commission has not neglected to take into account any of the important contributions which have been made to modern knowledge on this subject. In connection with pasteurization, the Commission has also carefully

considered the subject of the degrees of safety furnished to milk by the tuberculin testing of cattle and medical inspection of dairy employees.

After a thorough consideration of the various times and temperatures used, and different forms of apparatus recommended by various authorities, the Commission decided upon the following definition of pasteurization:

“That pasteurization of milk should be between the limits of 140 degrees F. and 155 degrees F. At 140 degrees F. the minimum exposure should be 20 minutes. For every degree above 140 degrees F. the time may be reduced by one minute. In no case should the exposure be for less than 5 minutes.”

In order to allow a margin of safety under commercial conditions, the Commission recommends that the minimum temperature during the period of holding should be made 145 degrees F., and the holding time 30 minutes.

Regarding the methods of pasteurization, the Commission believes that pasteurization in bulk when properly carried out has proven satisfactory, but that pasteurization in the final container is preferable.

The Commission thinks that pasteurization is necessary for all milk, excepting Grade A raw milk. The majority of the Commissioners voted in favor of the pasteurization of all milk, including Grade A raw, but since the action was not unanimous the Commission recommended that the pasteurization of Grade A raw milk be optional.

The process of pasteurization should be under efficient supervision. The supervision should consist of a personal inspection by the milk inspector. The intervals between inspections should be not more than one month. The inspector should score the pasteurizing plant by a score card.

Specimens of milk for bacterial analysis should be taken at the different stages in pasteurization and subsequent handling.

All plants handling 1,000 quarts of milk or more a day should be required to be equipped with automatic temperature regulators, flow regulators, and recording thermometers. The records of these must be examined by the Department of Health not less often than once a month.

Where pasteurization is done with small apparatus not so equipped, the proprietor should be required to examine the temperature of the milk in the heater at the first and last of each run, and keep a record of such temperatures, which record shall be submitted to the Department of Health not less often than once a month.

For the use of small dealers in cities, and small producers for towns and villages, efficient pasteurizers costing less than \$200 are available. The Commission, therefore, thinks that milk ordinances for towns and villages, as well as for large cities, and also State milk laws, should provide compulsory pasteurization, except for Grade A raw milk.

The efficiency of pasteurization should be controlled by bacterial tests before and after heating.

Scurvy and Pasteurization

The Commission has assumed that the low temperature of 145 degrees F. for 30 minutes as recommended by this Commission for pasteurization destroys none of the food constituents of milk. Enquiry conducted by the New York City Department of Health into the records of the infant milk depots, where sometimes over 25,000 infants are fed daily on pasteurized milk, appears to bear out this assumption. In view of the fact, however, that recent hospital experimental studies suggest that an exclusive diet of pasteurized milk may give rise to a sub-acute scurvy or similar nutritional disease in infants, which was entirely prevented, and even cured, by the feeding of orange juice or other anti-scorbutic food, the Commission recommends that orange juice be added to the diet of infants that are fed on pasteurized milk. The Commission wishes also to reaffirm its advocacy of the adoption of pasteurization by municipalities as a public health measure.

The tuberculin testing of dairy cows

The Commission has noted recent developments in connection with the manner of administering tuberculin as a diagnostic agent and goes on record as approving the use of tuberculin by the usual subcutaneous method, always, however, in connection with physical diagnosis, and with due regard to the methods prescribed by

the United States Bureau of Animal Industry. Other methods of using tuberculin should be regarded still as under judgment.

The Commission believes that health officers should encourage the use of tuberculin as an ideal diagnostic agent when in proper hands, and extend its use as rapidly as possible, realizing its practical limitations owing to the enormous number of cattle and their migrations and the limited number of veterinarians qualified to use this test.

It should be remembered also that tuberculin testing is a means of meeting only one of the many problems of milk control.

(4) GRADES OF MILK

The Commission believes that all milk should be classified by dividing it into three grades, which shall be designated by the letters of the alphabet. It is the sense of the Commission that the essential part is the lettering and that all other words on the label are explanatory. In addition to the letters of the alphabet used on caps or labels, the use of other terms may be permitted so long as such terms are not the cause of deception. Caps and labels shall state whether milk is raw or pasteurized. The letter designating the grade to which the milk belongs shall be conspicuously displayed on the caps of bottles or the labels of cans.

The requirements for the three grades shall be as follows:

Grade A

Raw milk. Milk of this class shall come from cows free from disease as determined by tuberculin tests and physical examinations by a qualified veterinarian, and shall be produced and handled by employees free from disease as determined by medical inspection of a qualified physician, under sanitary conditions, such that the bacterial count shall not exceed 10,000 per cubic centimeter at the time of delivery to the consumer. It is recommended that dairies from which this supply is obtained shall score at least eighty on the United States Bureau of Animal Industry score card.

Pasteurized milk. Milk of this class shall come from cows free from disease as determined by physical examinations by

a qualified veterinarian, and shall be produced and handled under sanitary conditions, such that the bacteria count at no time exceeds 200,000 per cubic centimeter. All milk of this class shall be pasteurized under official supervision, and the bacteria count shall not exceed 10,000 per cubic centimeter at the time of delivery to the consumer. It is recommended that dairies from which this supply is obtained shall score at least sixty-five on the United States Bureau of Animal Industry score card.

Grade B

Milk of this class shall come from cows free from disease as determined by physical examinations, of which one each year shall be by a qualified veterinarian, and shall be produced and handled under sanitary conditions, such that the bacteria count at no time exceeds 1,000,000 per cubic centimeter. All milk of this class shall be pasteurized under official supervision, and the bacteria count shall not exceed 50,000 per cubic centimeter when delivered to the consumer.

It is recommended that dairies producing Grade B milk should be scored, and that the health departments or the controlling departments, whatever they may be, strive to bring these sources up as rapidly as possible.

Grade C

Milk of this class shall come from cows free from disease as determined by physical examinations, and shall include all milk that is produced under conditions such that the bacteria count is in excess of 1,000,000 per cubic centimeter.

All milk of this class shall be pasteurized, or heated to a higher temperature, and shall contain less than 50,000 bacteria per cubic centimeter when delivered to the consumer.

Whenever any large city or community finds it necessary, on account of the length of haul or other peculiar conditions, to allow the sale of Grade C milk, its sale shall be surrounded by safeguards such as to insure the restriction of its use to cooking and manufacturing purposes.

Grades for small cities and towns

This Commission recognizes that, because of climate, size of the community, nearness to the sources of supply, ease of transportation and progress already made in improving the general milk supply, and in educating the dairymen and the public, different communities are in position to secure varying degrees of excellence in their standards for the grades of milk. This Commission, therefore, urges that its standards for Grade A, B, and C milk be regarded as minimum standards, and that any community may adopt higher requirements for its grades if its conditions make this feasible and desirable.

As a guide to health officers in the establishment of grades best adapted for their local communities, the following general broad principles are offered:

- (1) A careful preliminary survey of the milk situation should be made before the requirements of the several grades are adopted.
- (2) No matter how excellent the general milk supply of a community, it is not all of a single standard of excellence, hence there are actually different grades of milk in every community, and the recognition of such grades is always advantageous.
- (3) Grades in any community should always be such as to separate into two, or at most three, classes the milk supply of that special community. Where little or nothing has been done towards improving the general milk supply, it may be desirable to adopt temporary grades, (but not below the minimum requirements suggested by this Commission), with a time limit as to when more rigid requirements for the grades will be enforced.
- (4) Grades as adopted in any community should be such as not, under any circumstances, to sanction the sale of milk below the minimum standards which it is feasible for that community to require.

(5) Whatever departures are made by any community from the exact definition of grades as recommended by this Commission, several fundamental principles are recognized by the Commission as of universal application, and from these there should be no variation. These fundamental principles are:

- (a) Grade A milk, in a general way, is milk which complies with requirements of such character and degree that, for all practical purposes, no real advantage would be gained by further and higher requirements. The standards for this grade should, therefore, be placed high enough to attain this end, but not so high as to limit too greatly the supply, or, through unduly raising the price to the consumer, to limit too greatly the demand.
- (b) Grade B milk is all the remaining milk of the community which is suitable for drinking purposes, after pasteurization, but which does not comply with the high requirements for Grade A milk.
- (c) Grade C milk is milk which falls below the minimum requirements for milk suitable for drinking purposes, even after pasteurization. Its use must be confined to cooking and manufacturing purposes. Recognition of this grade of milk is not recommended by this Commission except in communities in which such recognition is an economic necessity.

(6) The fundamental objects in grading milk are:

- (a) To aid in making safe, for human consumption, all milk which can legally be sold for drinking purposes.
- (b) To distinguish between classes of milk which, while all safe, are of different degrees of excellence in respect to cleanliness and care in handling.

Each community should, therefore, endeavor to grade its milk supply so as best to attain these objects, without departure from the broad principles above laid down.

(5) CREAM

Cream should be classified in the same grades as milk in accordance with the requirements for the grades of milk, excepting the bacterial standards which, in eighteen per cent. cream, shall not exceed five times the bacterial standard allowed in the same grade of milk.

Cream containing other percentages of fat shall be allowed a modification of this required bacterial standard in proportion to the change in fat.

(6) BUTTER

There is evidence that much of the butter offered for sale on city markets is produced from cream of an inferior grade. The source of such cream is in many instances farms where dairying is only incidental and there are no facilities for sanitary care or refrigeration. The centralizers where this cream is gathered, and the plants where it is manufactured, into butter are often in a most unsanitary condition. It is believed that sanitation in the production and handling of fluid milk is far in advance of sanitation in the butter industry. It is the opinion of the Commission that steps should be taken at once to bring about a reform in the production and handling of butter, and that this can best be done by the establishment of standards and grades which will distinguish between the superior and inferior product. The Commission has deliberated on the subject of butter for a period of three years, and has made a detailed study through several of its standing committees, in addition to conferences with leading representatives of the industry itself. The conclusion of the Commission on this subject is as follows:

Definition

Standard butter is the clean, non-rancid product made by gathering, in any manner, the fat of fresh or ripened cream or milk into a mass, which also contains a small portion of other milk constituents, with or without salt, or added harmless coloring matter, and contains not less than eighty-two per cent. of milk fat.

Butter should be graded as to its sanitary quality and market score, and this Commission recommends such methods

as were recently adopted by law in Minnesota and Iowa, whereby the grading of butter on such a basis will be started as a voluntary matter.

In the interest of public health, cream used in the manufacture of butter should be pasteurized before being used.

Grade A butter should be made from Grade A milk or cream.

Grade B butter should be made from Grade B milk or cream.

The sale of butter should be restricted to the product obtained from milk or cream that has been produced in such a manner that it could be sold when fresh as Grade A or Grade B milk or cream, as defined by this Commission. Such milk or cream shall be handled before manufacture under strictly sanitary conditions by persons free from communicable disease.

If the sale of butter that is made from an inferior grade of milk or cream is permitted, such milk or cream should in all cases be pasteurized, and the butter properly labeled.

If butter is manufactured from rectified milk or cream, the fact shall be so stated on the label, and such butter should be considered as of the same class as renovated butter. Such butter shall be classified as Grade C.

All containers in which butter is sold shall be marked with the grade of the poorest milk or cream that is used, with the name and location of the plant at which it is manufactured, and with the date of manufacture.

(7)

ICE CREAM

The Commission has had the subject of ice cream under consideration for three years. It has been in the hands of a special committee.

In 1914 several series of bacteriological examinations of ice cream were carried out by the bacteriologists of the Commission, all of whom handed in reports to the Commission showing the character of ice cream from samples taken in their own localities. There was also made available for the Commission special work done on this subject by the Department of Agriculture at Washington, and by a number of public health authorities.

The Commission voted that ice cream shall be regarded as a food rather than a confection in the sense of the pure food law. The Commission also voted that the milk and cream used in the manufacture of ice cream should conform to the standards recommended by the Commission for milk and cream; also, that all milk and cream used in the manufacture of ice cream be pasteurized.

Concerning the definition of ice cream, which was discussed at several meetings, the Commission decided upon the following:

Ice cream is a frozen product made from pasteurized cream and sugar, or pasteurized cream and pasteurized milk and sugar, and shall contain not less than eight per cent. milk fat. It shall not contain any preservatives, neutralizing agent, saccharine, renovated or process butter, fats, or oils foreign to milk or to other ingredients allowed. It may contain wholesome eggs, harmless coloring matter, flavouring, sound, clean, mature fruits and nuts, pastries, and approved thickening not to exceed 0.5 per cent.

Ice cream should be kept frozen until dispensed. Synthetic cream, (the product made by emulsifying homogenized butter with milk or skim milk), should not be recognized for ice cream or other cream purposes unless the methods and ingredients used be approved by the proper authorities.

Health officers are advised to allow nothing to be sold under the name of ice cream unless it comes under the above definition, with the further provision that it be manufactured and handled in a sanitary manner, the method of determining proper sanitation to be controlled by local officials.

Where there are no bacterial standards the bacterial content should be used as a guide in checking sanitary conditions.

The use of substitutes for cream, such as emulsified fats, other than milk fats, should not be allowed for ice cream or other cream purposes. If used, the finished product should not be labelled ice cream.

Grading

Concerning the character of the products used in ice cream, the Commission decided to recommend that milk products used in the

manufacture of ice cream be restricted to the products of the Grade A and Grade B classes.

Grade A ice cream should be made from Grade A milk or cream, and the finished product should contain not more than 100,000 bacteria per cubic centimeter.

Grade B ice cream should be made from milk or cream not lower than Grade B, and the finished product should contain not more than 1,000,000 bacteria per cubic centimeter.

The Commission recommends the use of a suitable score card in grading the sanitary condition of ice cream factories.

A suggested score card is included in the appendix of this report.

(8) CONDENSED MILK

The Commission recognizes that in the manufacture of condensed milk, evaporated, powdered, and condensed milk products, the sanitary character of the raw milk used affects not only the keeping qualities, but also the safety and decency of the finished product. It is clearly to the best interests of the public and the condensed milk industry that condensed milk should be so labeled that the product prepared from fluid milk of a good quality may be distinguished from that prepared from inferior milk.

The Commission therefore recommends the passage of Federal, State and municipal legislation which will permit the manufacturer to state upon the label that his product has been prepared from Grade A milk, and he shall be protected in the use of such a label.

(9) SKIM MILK

The Commission passed a resolution regarding the chemical standards for skim milk at one of its earliest sessions, recommending that skim milk should contain not less than 8.5 per cent. of milk solids not fat.

In addition to this, regarding the food value of skim milk the Commission recommends that:

Whereas, the pressure of the cost of living is increasing rapidly, and vast quantities of nutritious and available food are now going to waste, and laws prohibiting the sale of skim milk have no public health significance; therefore, the Com-

mission recommends that the use of skim milk as a food be approved, and urges the repeal of laws wherever they exist that prohibit the sale of skim milk as a food.

(10)

BUTTERMILK

Concerning buttermilk, the Commission considered the subject at three of its sessions. As a definition of buttermilk the Commission suggests:

That the sale of buttermilk should be restricted, first, to the product resulting from the churning of milk or cream that is produced under such conditions that when fresh it could be sold as Grade A or Grade B milk or cream, as such grades have been defined by this Commission; or, second, to the product resulting from the skimming, souring, or treatment in any way of Grade A or Grade B milk, so that it resembles buttermilk, (the true character of such imitation or artificial buttermilk to be distinctly stated on the container in every case), provided that all such buttermilk shall be handled during and after manufacture in a sanitary manner approved by the local health authorities, and that it shall be kept at a temperature below fifty degrees F. from the time of manufacture until delivered to the consumer.

The Commission recommends that all milk, cream or skim milk entering into the manufacture of buttermilk be pasteurized, unless it can be shown that such milk or cream corresponds to Grade A milk.

All buttermilk should be sold in bottles or cans that are properly sealed and labeled, with the name of the manufacturing plant, with either the day or date of manufacture, with the grade of milk from which it was manufactured, and with a statement as to whether it is manufactured from a raw or pasteurized product, and whether it is artificially or naturally prepared.

(11)

CLARIFICATION

The process of the clarification of milk has come into such wide use that the Commission has felt it necessary to take cognizance of it, but it does not believe that it should be recommended as a required standard method. In its favor are the following points:

- (a) It removes visible dirt.
- (b) It removes inflammatory products, including many of the causative germs.
- (c) It performs the work of the strainer, but in a much more efficient manner.

Against it are the following points:

- (a) It removes visible dirt, but not all disease producing germs and hence misleads the consumer as to the real purity of the milk.
- (b) It does not remove urine or the soluble portion of feces; nevertheless, the milk appears clean.
- (c) It adds another process requiring handling of the milk, complicating the situation.
- (d) It largely destroys the value of the dirt test, though not more so than good straining.
- (e) It breaks up clumps of bacteria and distributes them through the milk.
- (f) The exact nature of the material removed is not yet fully understood.

(12) HOMOGENIZATION

Concerning the subject of homogenized milk or cream, the Commission bases its attitude on the principle of correct labeling. It is of the opinion that in the compounding of milk or cream, no fat other than milk fat from the milk in process should be used, and that no substance foreign to milk should be added to it.

The use of condensed milk or other materials for the thickening of cream is opposed unless the facts are clearly set forth on the label of the retail package.

Homogenized milk or cream should be marked as such, stating the percentage of fat it contains.

(13) LICENSES

A milk dealer should be required to have a permit or license to sell any grade or class of milk, and to use a label for such grade or class. Such permit or license should be granted only after the local health board has determined that the milk of the dealer actu-

ally belongs to the grade, and it should be revoked and the use of the label forbidden when it is determined that the milk is not in the grade or class designated.

(14)

LABELLING

All milk should be labeled and marked with the grade in which it is to be sold. In dating milk, uniform methods should be adopted. Besides the letter of the grade and the words "raw" or "pasteurized," there should be added sufficient statements to identify the milk as to its source, and the time at which it was produced, bottled, or pasteurized; and no term descriptive of the quality of the milk other than the officially adopted grades should be authorized, unless such term is of a generally accepted meaning.

In dating milk, uniform methods should be adopted for all grades of both raw milk and pasteurized milk, using the day of the week or the day of the month.

The sale of milk which is mislabeled or misbranded should be punished by revoking the dealer's license, reducing it to a lower grade, or by fines, or suitable penalties.

APPENDIX

HISTORY OF THE NATIONAL COMMISSION ON MILK STANDARDS

Milk Grading Previous to the Commission's Organization

In 1907 there was held a milk conference in Washington called by the Commissioners of the District of Columbia to report upon the milk supply of that city. At this conference Dr. A. D. Melvin offered a resolution proposing that milk be classified into three classes:

- Class 1. Certified Milk
- Class 2. Inspected Milk
- Class 3. Pasteurized Milk

In the first two classes the cows were to be tuberculin tested, and the milk to have bacterial standards. The conference recommended this classification. The proposal was notable because it provided for the pasteurization of all milk, with the exception of milk from tuberculin tested cows, produced under sanitary conditions.

In 1908, the Board of Health of New York city adopted a classification of milk as follows:

- Class 1. Milk (ordinary market milk, raw or pasteurized).
- Class 2. Selected Milk
- Class 3. Inspected Milk
- Class 4. Guaranteed Milk
- Class 5. Certified Milk

Class 1 represented the bulk of the supply, and no provision was made requiring either pasteurization or a bacterial standard.

Organization of the Commission on Milk Standards

In 1910, December 2 and 3, the New York Milk Committee held a conference on milk problems of leading milk authorities in America, at which the following resolution was adopted:

Resolved, That pending the adoption of national standards the conference on milk problems of the New York Milk Committee endorse the classification of milk recommended by A.

D. Melvin, Chief of the Bureau of Animal Industry of the United States Department of Agriculture, approved by the milk conference of the District of Columbia, 1907, and published in Circular 114 of the Bureau of Animal Industry, and in Bulletins Nos. 41 and 56 of the United States Public Health and Marine Hospital Service.

(This classification designates three kinds of milk: Certified, Inspected, Pasteurized.)

This same conference also passed the following resolution:

Whereas, It has been demonstrated by the papers and the discussions at this conference held at the invitation of the New York Milk Committee that it is imperative that definite standards and regulations should be adopted to govern the production and handling of dairy products for the prevention of disease and the saving of lives;

Resolved, That the New York Milk Committee be requested to invite between twelve and twenty recognized experts on milk problems to meet in conference, and that those experts be asked to make a unanimous report, recommending proper milk standards on which Congress or State authorities may formulate milk legislation.

In accordance with this resolution, in March, 1911, the New York Milk Committee, which is a voluntary organization working for the improvement of the milk supply of New York city and the reduction of infant mortality, invited twenty experts to become members of a Commission on Milk Standards. These men were selected from a list of more than two hundred men of prominence in medicine, sanitation, public health, and laboratory work, who were recognized as authorities on the milk question.

The members at the present time are as follows:

Dr. Carl L. Alsberg, Chief, Bureau of Chemistry, United States Department of Agriculture, Washington, D. C.

Dr. John F. Anderson, of E. R. Squibb & Sons, New Brunswick, N. J.

Dr. B. L. Arms, State Bacteriologist, Montgomery, Ala.

Prof. H. W. Conn, Director of Laboratory of State Board of Health, Middletown, Conn.

Dr. W. A. Evans, Department of Preventive Medicine, Northwestern, University, Chicago, Illinois.

Dr. Charles J. Hastings, Medical Officer of Health, Toronto, Canada.

Dr. J. N. Hurty, Secretary, State Board of Health, Indianapolis, Indiana.

Dr. J. H. Landis, Health Officer, Cincinnati, Ohio.

Dr. E. C. Levy, Health Officer, Richmond, Va.

Dr. A. D. Melvin, Chief, Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C.

Dr. J. S. Neff, Narberth, Pa.

Dr. Charles E. North, 30 Church street, New York city.

Dr. William H. Park, Director of Laboratories, Department of Health, New York city.

Mr. R. A. Pearson, President, College of Agriculture, Ames, Iowa.

Dr. M. P. Ravenel, Department of Preventive Medicine, University of Missouri, Columbia, Mo.

Prof. M. J. Rosenau, Department of Preventive Medicine and Hygiene, Harvard University, Cambridge, Mass.

Prof. H. C. Sherman, Department of Chemistry, Columbia University, New York city.

Dr. L. L. Van Slyke, Agricultural Experiment Station, Geneva, N. Y.

Mr. C. H. Wells, Health Officer, Montclair, N. J.

Dr. William C. Woodward, Health Officer, Washington, D. C.

In the list of names above there are eight public health officers, seven bacteriologists, three chemists and two agricultural experts. Thirteen out of the number have been educated as physicians; two of the members have had long practical experience in the milk industry; six have been connected with the production and control of certified milk.

Purposes

While this Commission was created by, and its expense is borne by the New York Milk Committee, it has not been the intention of the Committee that the Commission should have the New York

city milk problem solely in mind. It was desired that the Commission should make recommendations regarding milk standards and legislation that might be adopted by any city or town in the United States or Canada.

Meetings

The first meeting of the Commission was held at the New York Academy of Medicine on May 22, 1911. The subjects discussed included bacterial standards, chemical standards, and the grading and classification of milk. Several committees were appointed to report at the next meeting.

The second meeting of the Commission was held at the New York Academy of Medicine, October 5 and 6, 1911, at which the reports of standing committees were received and resolutions adopted concerning bacterial standards, chemical standards, and grades and classes of milk. Special committees were appointed to consider certain specific matters. The Commission tentatively recommended that milk should be classified as follows: Certified; Inspected; Market; Cooking; that there be bacterial standards and that the last two classes should be pasteurized.

January 4, 1912, the New York City Department of Health made an amendment to its sanitary code providing for a new classification of milk, as follows:

Grade A, for infants and children, including: Certified; guaranteed; inspected (raw); selected (pasteurized).

Grade B, for adults, including: Selected (raw); pasteurized.

Grade C, for cooking, including both raw and pasteurized.

It is noteworthy that this grading system made some use of the recommendations of the Commission on Milk Standards, but omitted any bacterial standards for Grade B or Grade C milk, and permitted the sale of raw, unpasteurized milk in all grades. At the same time it was recognized that this action of New York city was a great step in advance, and an indication that the Commission's work gave promise of taking practical form.

First Report

The third meeting of the Commission was held at Homer, New York, January 25, and at the New York Academy of Medicine, January 26 and 27, 1912. At this meeting minor matters were voted upon and preparation made for the publication of a report of all of the Commission's work. The first report appeared as a bulletin of the United States Public Health Service in the Public Health Reports, Volume 27, No. 19, May 10, 1912; 70,000 copies of this report were distributed.

The fourth meeting of the Commission was held in Chicago, October 29 and 30, 1912, at the time of the National Dairy Show. At this meeting the Commission attended the annual convention of the International Milk Dealers' Association, and took part in a discussion of the classification of milk and milk standards with the leading representatives of the milk industry of the United States and Canada.

The fifth meeting of the Commission was held in Richmond, Virginia, on May 2 and 3, 1913. By this time the Commission had the benefit of numerous criticisms and suggestions which had been called forth by the first provisional report. At this meeting the Commission made some radical modifications of its standards and grades, as follows:

- (1) That in classifying milk the grades be designated by letters only, and not by such words as "certified," "inspected," "selected," etc.

- (2) That the classification be changed to include only three grades:

Grade A, consisting of two classes, raw milk with a bacterial standard of 100,000 per cc. from tuberculin tested cows (employees medically inspected); pasteurized milk with a bacterial standard of 100,000 per cc before pasteurization, and 10,000 per cc. after pasteurization;

Grade B, consisting of one class, with a bacterial standard of 1,000,000 before pasteurization and 50,000 after pasteurization.

Grade C, consisting of one class, over 1,000,000 before pasteurization, and 50,000 after pasteurization.

Second Report

The second report of the Commission on Milk Standards was published by the United States Public Health Service in their public health reports on August 22, 1913, and contained the new grading system as above recommended. This report was endorsed by the American Public Health Association at its annual meeting in Colorado Springs, September 9-13, 1913.

(January 1, 1914, the New York City Department of Health amended their grading system so as to conform in its essential features to the new grading system recommended by the Commission on Milk Standards. This was soon followed by action by the New York State Department of Health in establishing a grading system for all towns and cities in the State. Later on the cities of Newark, N. J., Jersey City, N. J., Richmond, Va., Kansas City, Mo., adopted similar though not identical grading systems. The grading of milk is also being considered at the present time by the public health authorities of several other municipalities as well as States.)

The sixth meeting of the Commission was held at the New York Academy of Medicine April 13, 1914. At this time special attention was given to milk products and reports presented by the members of their own investigations on the sanitary and bacterial conditions of the ice cream and butter in various parts of the United States and Canada.

The seventh meeting of the Commission was held in the Hotel Biltmore and the New York Academy of Medicine May 7 and 8, 1915. On this occasion the Commission met the officers of a number of commercial organizations, including the National Ice Cream Dealers' Association, the National Creamery and Butter Makers' Association, and the International Milk Dealers' Association. The deliberations dealt chiefly with the subjects of butter, ice cream and other milk products, and also with the questions of the control of certified milk and dairy inspection.

A special committee of the Commission met in Washington on January 17, 1916, with the Joint Committee on Definitions and

Standards appointed by the Bureau of Chemistry of the United States Department of Agriculture. The object of this meeting was to permit the members of the Commission on Milk Standards to present to the Joint Committee the results of the work of the Commission on Milk Standards, and to urge the Joint Committee on Definitions and Standards, which represents the food and dairy commissioners of the various States, the agricultural chemists, and the United States Department of Agriculture, to approve of the adoption of uniform milk standards for all of the States, and of the bacterial testing and grading of milk according to its sanitary character.

The eighth meeting was held May 19 and 20, 1916, in the New York Academy of Medicine. This meeting was especially effective because of the extensive work performed by the standing committees of the Commission which held their own independent meetings in various parts of the United States several weeks in advance of the general meeting. As a consequence of this preparatory work, each committee brought in most complete and extensive reports of the subjects with which they had to deal. These subjects included: ice cream, butter, condensed milk, standards for small communities, the significance of bacterial counts, essentials of dairy scoring, adjusted milk, clarification, pasteurization, tuberculin testing and other minor matters. This present report is a summary of the conclusions reached by the Commission as a result of all of the sessions, and may be regarded as superseding the previous reports.

FACTORS OF PRIMARY IMPORTANCE IN DAIRY PRACTICE FOR CONTROLLING THE SANITARY CHARACTER OF MILK

In its last report the Commission placed in an appendix detailed regulations for the control of sanitary conditions in dairies and milk receiving stations.

The regulations given there have varying degrees of value in controlling the character of milk. Many add expense to the cost of production, and some, while they improve external appearances in the dairy, do not materially affect the quality of milk. The grading system deals primarily with the character of the product

and a dairyman should give his special attention to such factors as will most effectively improve the character of the product.

Hence dairy inspectors should aim to place primary emphasis upon the factors that most largely affect the quality of the milk. The Commission urges all health officers and dairymen to separate the factors of primary importance from those of secondary importance. The following statements are not intended to replace more elaborate regulations given elsewhere but to show where the primary emphasis should be laid and to distinguish the more important measures from those that are of secondary importance in controlling the quality.

In what follows it is assumed that other standard regulations are adopted, and that no milk is to be shipped from cows evidently diseased, or with sore udders, or milk handled by employees sick with any infectious disease, or carriers of disease germs.

Where milk is to be sold in a raw state it is assumed that all cows will be under veterinary supervision, and tuberculin tested once each year, and dairy employees will be under regular medical inspection.

Under these conditions it is the opinion of the Commission that the following factors are most essential in putting on the market milk which is clean and contains a low bacterial count.

1. *Financial Stimulus*

This factor underlies all others. Unless the dairyman can be convinced that it is to his financial advantage to produce clean milk, any attempt to purify the milk supply by legal statutes will be largely futile. To produce such a financial stimulus some form of grading milk is necessary in which the public will have confidence as being thoroughly reliable. This will involve:

(a) *The Health Officer*

The milk must be graded by the proper authorities, and this should include constant bacteriological examination of the milk furnished by each producer for the purpose of grading.

(b) *The Dealer*

The milk should be paid for by the dealer according to its grade. The most effective results will be obtained so far as concerns clean-

liness, and sanitary character, when the dealers pay the producer for milk on a scale based upon its bacterial count, in addition to other factors.

The dealer should also thoroughly sterilize all milk containers by steam before returning them for refilling. (It has been found that one of the greatest sources of trouble is the fact that the dealer returns to the producer cans which are not only not sterilized, but sometimes not even washed clean. No producer can furnish good milk in such cans, but the dairyman is almost sure to be blamed for a condition for which the dealer is wholly responsible.)

2. To produce milk of Grade A or B the producer will find the following factors the most efficient in controlling its cleanliness and its bacterial count:

(a) *Milking*

Cows should have clean udders.

Hands of the milker should be clean and dry.

A small topped milk pail should be used.

With clean methods no strainer is needed, but if one is used it is preferably of cloth (cheese cloth) which has been sterilized by boiling. It is important that the same cloth shall not be used for the morning's milking and again for the night's milking. Two strainer cloths should be boiled, one used for the morning and the other for the night's milking.

(b) *Sterilizing*

All milk vessels should be washed with a brush and with washing soda, or with alkaline powder and water, should be rinsed in clean water and sterilized. Where steam is available, this should be used for sterilizing, either is a jet of live steam, or under pressure. Where steam is not available an abundance of boiling water should be used.

(c) *Cooling*

The milk shall be cooled promptly to as low a temperature as is feasible with facilities available. Where this is done in a water tank and it is desired to stir

the milk to facilitate the process, a wooden paddle of any kind must not be used. A metal stirrer may be used, which must be thoroughly washed and sterilized with boiling water each day. The lower the temperature to which the milk can be cooled, the easier it will be to produce milk of low bacterial count.

While other factors in milk production have their influence, extended tests show that 90 per cent of the high bacterial counts are attributable to the neglect of the above.

The above sanitary measures have special reference to the preservation of the sanitary character of milk during the process of milk production on the dairy farm. It is recognized that in addition to these, precautions must be observed in the milk factory or shipping station, and on the railroad and in the city delivery station. In some cases the chief trouble is after the milk has left the dairy. In shipment three factors control the quality of the milk at its destination: *Time, temperature, and cleanliness of utensils.* Thorough refrigeration of milk in its progress from the dairy farm through the shipping station, on the railroad and in the city station, is essential to prevent large multiplication of bacteria. Washing and sterilizing of all vessels in which milk is contained, and of all apparatus with which it comes in contact is vital if contaminations are to be prevented which can easily destroy the sanitary character of milk which may have left the dairy farm in first class condition. There is very little value in the practice of sanitary measures by the dairy farmer if the milk in the hands of the dealer is not properly refrigerated and handled in a sanitary manner.

SCORE CARD FOR ICE CREAM MANUFACTURING PLANTS

	Perfect	Allow
LOCATION.	15	....
Above ground.	5	
Free from contaminating surrounding (No score if bad)	3	
Protected from street dust.	3	
Not connected with any other room.	2	
No other business in same establishment.	2	
(CONSTRUCTION.	15	....
Well lighted (natural)	2	
Well ventilated.	1	
Thoroughly screened.	2	
Water-closet does not open directly into establishment.	2	
Separate room for washing utensils.	2	
Floor: Smooth, water-tight, well drained.	4	
Walls and ceiling: Smooth and tight.	2	
EQUIPMENT.	30	....
Steam at all times.	5	
Hot water at all times.	3	
(No credit unless running hot water)		
Sterilizer for utensils	3	
Connections for sterilizing apparatus.	2	
Pasteurizer: Holding machine	4	
Automatic recording device	1	
Refrigeration: Mechanical.	2	
(Proper ice-box, 1)		
Freezer: Type, connections, etc.	2	
Sanitary piping.	2	
Wash basins and towels, ample.	1	
Utensils: Condition	1	
Ample for the service.	1	
Racks for.	1	
Employees: Health certificates for.	1	
Clean suits provided	1	
METHODS.	40	....
Freedom from flies	2	
Protection of material:		
Before manufacture	3	
During manufacture	3	
After manufacture	3	
Utensils and apparatus sterilized.	3	
(Washed in hot water, 1)		
Cleanliness:		
Floors. 3	Walls and ceiling. 1	
Windows. 1	Utensils. 3	
Apparatus. 3	Employees. 3	
Character of materials used:		
Milk and cream, Grade A.	6	
Grade B, 4; Grade C, 1		
Condensed milk, eggs, etc.	2	
Thickeners — none used	1	
Artificial coloring — none	1	
Degree of refrigeration of final product.	2	

Total. 100

BOVINE TUBERCULOSIS AND OTHER DAIRY DISEASES

From time to time the work of this Committee has touched upon the important question of bovine tuberculosis and contagious abortion. So such study has been had and is being had, and so many efforts have been made in relation to these matters as to which this Committee has given little time or thought, that there is no intention to attempt at this time to make an extensive report in relation thereto. It seems to be conceded that the continued prosperity of the dairy industry in this State requires a continued attempt to eliminate or keep under control bovine tuberculosis among the herds. It is an undoubted fact that infection with bovine tuberculosis is possible to mankind and is all too frequent in the case of young children nourished with un-pasteurized cow's milk. It seems to be well established that milk from tubercular cows under certain conditions will spread the infection to young animals. It is strongly suspected that the feeding of infected milk to calves may produce a disease in the herd, which results in abortion or "contagious abortion," as it is frequently termed.

It is the custom at the creamery where only cream is desired and at the market milk station during the period when cream is separated from the surplus milk, to return to the dairymen quantities of skim milk for use in rearing calves and other livestock. Of course, whey is returned from cheese factories in substantially the same way. Certain milk purchasing companies, as the result of study and investigation, on their own motion, pasteurize all skim milk thus returned in order to prevent the spread of disease among the herds in the vicinity of their plants. It would seem impossible to escape from the conclusion that if skim milk from many herds is mingled and returned to the dairies, if there is a cow in the neighborhood giving infected milk, that the germs from that cow must necessarily be scattered to nearly all the dairies receiving skim milk from the station. It would necessarily follow that this infected milk would in turn infect growing calves on these farms. Is the State justified in spending large sums of money to eradicate or control bovine tuberculosis on the one hand, while on the other permitting the fatal germs to be sown wholesale from the collecting station? An effort has been made in the past

to secure the enactment of a law providing that all skim milk and whey thus re-distributed among the herds should be pasteurized. The passage of such an act is urged by certain dairy sections which have had experience with the question. It is asserted by these dairying communities that the results of pasteurization of skim milk are evident in the reduction of bovine tuberculosis in their communities. They are therefore strongly in favor of the passage of such a law. In other sections, however, such proposed law is opposed on the part of creameries and cheese factories on the ground that it will add greatly to expense and cost additional labor. It is believed, however, that a full understanding of the question will remove this opposition. The necessary apparatus to accomplish pasteurization of the skim milk and whey is really simple and inexpensive. If the certain milk companies can afford to do it without additional charge for the protection of the herds bringing milk to their plants, merely to improve dairying conditions in their vicinity, and without any present return, surely the dairymen of the State can well demand this safeguard in order to protect their own interests.

It was perhaps unfortunate that the effort of the State to control bovine tuberculosis met with unsatisfactory results in its early stages. These results are claimed to have been collected by the New York Milk Committee under date of November 24, 1914, and submitted to the Legislative Committee of the Governor's Commission on bovine tuberculosis. This report is included hereinafter. It is stated to have been withheld from publication at that time. It is possible that this unfortunate situation has confused and discouraged those engaged in the attempt to control this evil. It is sincerely to be hoped that in the near future the State may be able to undertake the work of eradicating or reducing this disease in an efficient and successful manner. It should either be admitted that the task is too great a one for the State to accomplish and further effort abandoned, or else it should be resolutely attacked. If it is possible successfully to control this disease, the State of New York is abundantly able to afford the necessary funds and it should be possible to secure efficient administration. If it can be controlled, the ultimate return to the State and to the

dairymen of the State will far exceed the expense. If no practical result can be accomplished towards the subjugation of the disease, then there is no reason why further money should be expended for that purpose. A decision upon this point should be reached at once.

The following is the report above referred to. The Committee has made no independent investigation to ascertain how far the conclusions of the New York Milk Committee, as contained in this report, are justified by the facts. It is included here for the purpose of showing alleged causes of dissatisfaction that existed in the administration of this law in former years. It is believed that the fraudulent practices referred to in this report have been eliminated by the Department under the present administration. That fact is admitted by those who prepared the report in question, but the New York Milk Committee earnestly contends still that the State fails to take effective means and measures to clean up the herds of the State.

The following table shows the results of the experiments conducted on the effect of the concentration of the solution on the rate of reaction.

NEW YORK MILK COMMITTEE

REPORT OF CRITICISM OF NEW YORK STATE AGRICULTURAL LAW
AND ITS ADMINISTRATION IN RELATION TO BOVINE TUBERCU-
LOSIS, SUBMITTED TO THE HON. SETH LOW, MEMBER OF
GOVERNOR GLYNN'S COMMISSION ON BOVINE TUBERCULOSIS,
NOVEMBER 25th, 1914

NEW YORK MILK COMMITTEE

(Incorporated 1910)

105 EAST 22D STREET

NEW YORK, November 25, 1914.

Hon. SETH LOW, *Chairman, Legislative Committee of Governor's Commission on Bovine Tuberculosis, Bedford Hills, New York:*

Dear Sir.—Complying with your request for criticism and constructive suggestions regarding the administration of the Agricultural Law relating to the control of bovine tuberculosis in New York State, the New York Milk Committee submits for your consideration the following statements which are based upon facts set forth in memoranda attached herewith which are in turn supported by documentary evidence which is to be delivered personally to you:

1. Bovine tuberculosis is extensively prevalent among dairy herds throughout New York State.
2. Bovine tuberculosis in advanced stages exists in a large percentage of cattle found reactors by the tuberculin test in New York State.
3. Bovine tuberculosis is uncontrolled in New York State.
4. The tuberculin test is improperly applied and results correspondingly inaccurate.
5. Cattle known to react to the tuberculin test are passed as free from the disease by the State.
6. Veterinary tuberculin is inadequately accounted for in its distribution and use.
7. Bang system herds are not properly supervised and provisions in the law to protect public health are not complied with.
8. Under the existing law there is no systematic provision for State supervision of slaughter houses and diseased carcasses.

9. The State Department of Agriculture fails to identify diseased cattle, after diagnosis, by branding to prevent:
 - (a) Switching animals that have reacted to the tuberculin test, have been appraised, and before being slaughtered.
 - (b) Traffic in "plugged" cattle.
 - (c) Unlawful disposal of unbranded tuberculous cattle after being held under the Bang system.
10. The Department of Agriculture fails to carry out the Bang system as provided by law and intended to replace high grade diseased stock with young healthy animals.
11. Acts on the part of representatives of the Department of Agriculture show either collusion or criminal carelessness.
12. The Department of Agriculture exercises bad business management.

The New York Committee will be glad to avail itself of the opportunity which you have offered to submit later some constructive suggestions working toward more adequate control of bovine tuberculosis and its ultimate eradication.

Very truly yours,
NEW YORK MILK COMMITTEE,
PAUL E. TAYLOR, *Secretary*.

11/25/14.

NEW YORK MILK COMMITTEE

CONTROL OF BOVINE TUBERCULOSIS

In March, 1914, great activity was noted on the part of the Department of Agriculture and the dairy interests in urging the passage of Webb Assembly bill No. 986 and Wheeler Senate bill No. 1315.

On March 25, 1914, the New York Milk Committee submitted to each member of the legislature, and to the public press, a five-page memorandum (Exhibit AA) dealing with the Webb bill and the bovine tuberculosis situation in New York State. It was pointed out that this bill called for an amendment of that part of the Agricultural Law relating to the control and extermination of bovine tuberculosis by providing for compulsory physical examination of all dairy cows and the slaughter of animals found to have tuberculosis, as determined by such physical examination. Payment for cattle slaughtered was the same as provided for under the present law, with the exception that where the disease was found to be generalized the indemnity was not to exceed \$15.00, together with the proceeds of the sale of the carcass and hide. The Committee urged that no further legislation be enacted until the situation was squarely met and a real constructive program formulated to ensure the eventual elimination of this dangerous disease from New York State's dairy herds.

Facts were presented showing the prevalence of bovine tuberculosis among New York dairy herds and herds of other States and countries. Authoritative statements as to the efficiency of various methods of detecting this disease were presented, as also means of transmission of the disease from cow to cow; from cow to calf; from cow to man. The results of scientific investigation by government commissions and laboratories having international reputation were presented showing the dangers of the transmission of this disease to the human, particularly children. The dangers of permitting diseased cows, not detected by physical examination, to go uncontrolled and spread the infection were set forth.

It was pointed out that the Webb bill offered no real solution of the problem confronting New York State, either from a public

health or economic standpoint, and the enormous expenditure which would be required to carry out its provisions would not be warranted by results which might reasonably be expected.

Following this memorandum a campaign was undertaken by the New York Milk Committee to bring to the attention of the general public facts bearing upon present conditions to show the urgent necessity of the adoption of adequate remedial measures in the interests of public health and in the best interests of the dairy industry itself. The facts which were given publicity were based almost entirely upon documentary evidence received from the New York State Department of Agriculture, or upon testimony or information which can be corroborated by persons having knowledge of the transactions referred to, or by records on file in the State Department of Agriculture.

The points made are divided into two main headings:

A. FACTS SHOWING PRESENT SITUATION AS DANGEROUS TO PUBLIC HEALTH.

B. FACTS SHOWING INEFFICIENCY AND ACTS DETRIMENTAL TO THE BEST INTERESTS OF THE STATE IN THE ADMINISTRATION OF THE PRESENT LAW.

A. FACTS SHOWING PRESENT SITUATION AS DANGEROUS TO PUBLIC HEALTH.

1. Bovine tuberculosis is extensively prevalent among dairy herds throughout the State.

(a) In thirty-nine counties of New York State, in 1907, out of 421 herds tested, 302, or seventy-one (71) per cent. contained cattle that reacted; and out of the 9,638 animals tested, 3,432, or thirty-five (35) per cent. reacted. (Bovine Tuberculosis, by Dr. Veranus A. Moore).

(b) Published reports of New York State Department of Agriculture, on animals tested and retested, by the State, show that reactors were found in nineteen (19) per cent. of the cases, in 1912, and sixteen (16) per cent. in 1913. (Exhibit I).

(c) If certified herds, which are retest herds, be eliminated the State figures would show a much higher percentage of reactors, as shown in the case of Orange county for 1913, for which is given a percentage of reactors of 9.1 for all herds tested. By eliminating certified herds (Alexander Campbell herd and four herds tested by Dr. H. D. Gill, veterinarian to the New York County Medical Milk Commission) the percentage is found to be twenty (20). (Exhibit II).

(d) In certain counties the percentage of reactors is considerably greater than the average for the State. Tests made in the following counties for the year ending October 1, 1913, taken from data appearing in Exhibit III, show:

ANIMALS

County	Total Animals	Tested	Reacted	Per cent
Delaware	93,237	436	114	26.1
Erie	54,567	471	206	43.7
Herkimer	54,124	193	86	44.6
Clinton	33,021	208	73	35.4
Ulster	29,361	435	143	32.9
Albany	18,231	116	53	45.7

2. Bovine tuberculosis in advanced stages exists in a large percentage of cattle found reactors by the tuberculin test.

(a) Postmortems of reactors shows a high percentage of generalized tuberculosis cases. Below is list of counties having largest numbers of dairy cows: (Exhibit III).

(b) The number of postmortems of reactors (Number of animals condemned less number of animals held under the Bang system and number of animals having died) for the entire State, for year ending October 1, 1913, show out of a total of 2,055, twenty-eight (28) per cent. generalized cases. (Exhibit III).

(c) United States census for 1910 report 438,329 calves and 1,509,594 cows in the State of New York, making a total of 1,947,923 cows and calves. If the percentage of reactors among animals tested reported by the State Department of Agriculture in 1913, is applied to total animals, the number of tuberculous cows and calves in the State is 311,668. If the percentage of generalized cases of tuberculosis shown by postmortem in 1913 be applied, there are 87,267 cases of generalized tuberculosis in the State

3. Bovine tuberculosis is uncontrolled.

(a) Condition of approximately ninety-eight (98) per cent. of the dairy animals (cows and calves) is unknown to the Department of Agriculture. (Exhibit III and United States Census figures, 1910, as to number of animals).

The Department of Agriculture states that ninety-seven (97) per cent. of the dairy cattle were not tested in 1913 and under no systematic scheme of supervision insofar as their health is concerned. (Exhibit IV, pg. 5).

County	Rank as to Number of Dairy Animals	Number of Post- mortem of Generalized Reactors Tuberculosis	Percent.
St. Lawrence	First	53	43
Delaware	Second	69	24
Jefferson	Third	53	35
Oneida	Fourth	31	19
Cattaraugus	Fifth	17	47
Otsego	Sixth	220	19
Chautauqua	Seventh	60	23
Orange	Eighth	31	29
Erie	Ninth	159	31

4. The tuberculin test is improperly applied and results inaccurate.

- (a) "Our experience indicates that the subcutaneous tuberculin test, as commonly used, is not as thoroughly conducted as is advisable, there being insufficient time taken to do the work properly and in many cases the results are correspondingly inaccurate." Annual Report, 1913, Bureau of Veterinary Service, by J. C. Wills, chief veterinarian. (Exhibit IV, pg. 9).

5. Cattle known to react to the tuberculin test are passed as free from the disease.

- (a) Case of Simon herd, Orr's Mills, N. Y., in official charts of tests show reactors which were passed. (Exhibit V).

6. Cattle known to be diseased were not branded to prevent fraud and their becoming disseminators of the disease.

- (a) Unpublished report of Chief Veterinarian Wills, 1913: "It is questionable whether tuberculous animals should be allowed to be sold or distributed, promiscuously, without any attempt at control. The permanent branding or marking of such animals might serve to sufficiently identify them and thus place them under the necessary surveillance." (Exhibit IV, pg. 8).

- (b) The Agricultural Law provides "That all cattle shall be branded unless otherwise directed in writing by the Commissioner of Agriculture." Mr. Huson, Commissioner of Agriculture, has stated that he has never given permission not to brand any reacting animals. (Exhibit A, affidavit of Messrs. Griffin and Taylor).

(c) Unbranded diseased cattle shipped as healthy, as shown in:

- (1) Case, United States vs. J. Frank Donahue, Grafton, Mass., before U. S. Court. Shown that reacting, unbranded cattle, tested and reacting at Utica, were shipped as healthy. (Exhibit VII, report of Dr. Mullings, United States Bureau of Animal Industry).

- (2) Case, United States vs. C. F. Hunt, Oran, N. Y., dealer and breeder of Holstein-Freisian cattle. Sale of Fidgama II, register No. 56,771; Ruth Tekstra III, register No. 67,305; Dora Pietertze Johanna Ormsby, register No. 93,294. Exhibit VII, report of Dr. Mullings, U. S. Bureau of Animal Industry).

7. Tuberculin is inadequately accounted for in its distribution and use.

- (a) This is based on statements of Chief Veterinarian Wills to Griffin and Taylor (Exhibit B) and affidavits of Messrs. Larson, McDowall and Myers regarding the purchase of tuberculin (Exhibits C, D and E) at New York drug stores without giving information to the clerk as provided for in article 5, section 64 of the Agricultural Law, which states

"All persons selling or giving away tuberculin shall report to the Commissioner of Agriculture the amount of tuberculin sold or given away; the degree of strength; the name and address of the person to whom sold

or given and the date of delivery; said report shall include the address of and be signed by the person making it." (Tuberculin purchased marked Exhibits F, G and H).

NOTE.—Tuberculin is furnished by Cornell; New York City Department of Health; Parke, Davis and Company, New York; Mulford Drug Co., New York. Furnished free by State and by drug firms at various prices from thirty cents to one dollar a dose. The "plugging" practice is believed to be quite general.

8. Bang system herds are not properly supervised and provisions in law to protect public health are not complied with.

(a) The responsibility for the supervision and control of Bang herds as provided for in article 5, section 98 is not carried out in that the chief veterinarian does not have direct control over such animals, his duties being assumed by a layman, Deputy Commissioner Winters. (Exhibit A, affidavit Taylor and Griffin).

(b) Department fails to supervise cows under Bang contract, as shown:

(1) Case of Mrs. J. R. Hathaway, Homer, N. Y.; calves not segregated; no pasteurizer used. (Exhibit I, affidavit Griffin).

(2) John Finley, Vailgate, N. Y. Cows used for feeding calves. Not pasteurized. (Exhibit III, Memorandum Board of Health, New York City).

From middle of February, 1914 to middle of April, 1914, milk shipped raw from this herd to Joseph Corkerdale, New York; sold raw. Inspection statement New York City Department of Health. (Exhibit IX, memorandum Board of Health, New York City).

9. Under the existing law there is no systematic provision for State supervision of slaughter houses and diseased carcasses.

(a) "The adoption of a method of stamping all carcasses fit for food purposes is contemplated." (Exhibit IV, Chief Veterinarian Wills, Annual Report, 1913, pg. 11).

(b) Recommendations of Chief Veterinarian Wills providing for a state-wide meat inspection service. (Exhibit IV, pg. 27.)

(c) Dr. Wills' statement: "The close relation of this traffic to that of diseased and other unwholesome meats emphasizes the recommendations made in previous reports as to the necessity of a State meat inspection service." (Exhibit IV, Pg. 3.)

B. FACTS SHOWING INEFFICIENCY AND ACTS DETRIMENTAL TO THE BEST INTERESTS OF THE STATE IN THE ADMINISTRATION OF THE PRESENT LAW.

1. The Department fails to identify diseased cattle, after diagnosis, by branding, to prevent:

(a) "Switching" after animals have reacted, have been appraised and before being slaughtered.

- (1) Case 8822, Exhibit X. For year ending October 1, 1913, nineteen (19) reacting cattle were found in a herd on McLaury Bros.' farm, Portlandville; appraised at \$1,220. Postmortem report shows that of the nineteen (19) reactors nine (9) were localized cases, three generalized, and seven (7) no-lesions. The fact that seven cases were reported as having no lesions suggest that seven (7), less valuable but healthy animals, were substituted for the reactors.

That this is entirely possible is shown by the fact that the tests were made by Drs. Hamilton and Stebbins; the appraisal by Mr. Marshall; postmortem by Dr. Lynch.

(b) Traffic in "plugged" cattle.

(c) Unlawful disposal of unbranded tuberculous cattle reported as being held under the Bang system.

- (1) Of eight (8) cows reported as placed under the Bang system three (3) on Nov. 14, 1912; two (2) Nov. 18, 1910; three (3) Nov. 6, 1910, by Zoller, Hammond, N. Y., two (2) are reported as having died on December 1, 1913. (Exhibit X, animal numbers 146,516, 175,859, 163,632, 294, 31, 63, 64) and six (6) on Dec. 3, 1913.

Note.—While it is not proven that these cows were unlawfully disposed of, it appears strange that these eight (8) cows should have died within two days.

2. The Department fails to carry out the Bang system, as provided by law and intended to replace high-grade diseased stock with young healthy animals by

(a) Distribution of high-grade reacting cattle among individuals and institutions, manifesting no attempt to carry out the provision or intent of the law.

- (1) State cattle on premises of J. H. Hathaway, Homer, N. Y. Thirty-two (32) registered animals sent to Hathaway farm. No pasteurizer. Calves not segregated. (Exhibit XIX and Exhibit I).

- (2) Nine (9) cows sent to J. Findlay, Vailgate, N. Y.; carried on Department records as being placed under the Bang system. No pasteurizer. Milk sold raw in New York market. (Exhibits VIII, XVIII and IX).

- (3) U. S. Relief Corps Home, Oxford, N. Y., received thirty-three (33) state cattle reported as being held under the Bang system from September, 1912, to January, 1914. Twenty-five (25) of these cows were slaughtered during the first year. John Colton, Oxford, N. Y., states: "There has never been a calf raised to the best of my knowledge." (Exhibits XI, XII and XIII).

(b) Grade and registered animals paid for by the State at 80 per cent. of their appraised value and consigned under the Bang system to persons and institutions are slaughtered shortly after arrival.

- (1) Lincoln Agricultural School and New York Catholic Protector; out of eighty (80) cows consigned under the Bang system and slaughtered within one year, eighteen (18) were killed during the first month; thirteen (13) during the second month; six (6) during the third month and twenty-four (24) from the third to the sixth month. (Exhibit XI).

NOTE.—Rev. Brother Barnabas states he had a verbal agreement with Deputy Commissioner Winters to slaughter certain animals whenever he deemed it advisable. (Exhibit J, affidavit of S. G. Williams.)

NOTE.—The New York Milk Committee has no criticism of the manner in which the Lincoln Agricultural School conducts its Bang herd—in fact, Mr. Griffin reported that the cows actually held under the Bang system and their offspring were kept in strict compliance with the law, and so far as he could ascertain, all milk from these cows was properly pasteurized before being used.

- (c) The Department gives no statistical evidence in public reports showing the number of healthy calves raised under the Bang system. So far as can be learned the Department has no complete information on this subject.
 - (d) Milk from Bang herds fed raw to calves and sold raw in New York city for food purposes. (Exhibits VIII and XIX).
 - (e) Provisions of the law: (Agricultural Law, article 5, section 98) "The Chief Veterinarian shall, under the direction of the Commissioner of Agriculture, have general charge of the enforcement of the provisions of this article"; are not carried out in respect to supervision and control of Bang herds, in that this work has been delegated to Deputy Agricultural Commissioner Winters (Exhibit A, affidavit Taylor and Griffin).
3. The Department fails to condemn cattle giving a typical reaction to tuberculin.
 - (a) Simon herd, Orr's Mills, N. Y. (Exhibit V).

NOTE.—Normal temperature of cow approximately 102. Tuberculin reaction is positive if there is a rise of 2 degrees F. above maximum temperature during period before test. Seventeen (17) cattle in herd mentioned had rise of more than two degrees F.; four were condemned.

4. Collusion or criminal carelessness of Department's representatives.
 - (a) Carcass having generalized condition of tuberculosis bearing stamp of the N. Y. State Department of Agriculture, "Passed 37," sold for food purposes at Poughkeepsie. (Exhibit XIV).
5. The Department of Agriculture exercises bad business management.
 - (a) Cows reacting, appraised at high value and paid for by the State, reported as placed under the Bang system, slaughtered almost immediately and little or no returns made to the State Treasury for carcasses passed for food purposes.
 - (1) Case No. 8475, Exhibit XV, shows that on seven (7) cows condemned in herd of Ralph Butler, Homer, N. Y., appraised

at \$480, an indemnity of \$363.25 was granted. One cow was slaughtered immediately and found to have generalized tuberculosis. The remaining six (6) cows were reported as sent to Lincolndale, to be held under the Bang system, December 28, 1912, along with another lot of ten cows owned by M. J. Peck, cow dealer, Cortland, N. Y., which were appraised at \$520 and on which an indemnity of \$416 was granted by the State. (Exhibit XV, case 8460). Of the sixteen (16) cows sent to Lincolndale, to be held under the Bang system, fourteen (14) were slaughtered for food purposes within seven months (Exhibits XV and XI) and a return of \$41.10 made to the State Treasury. Of fourteen (14) cows consigned December 28, 1912, to Lincolndale, four (4) were slaughtered on January 10, 1913. (Exhibit XI).

- (b) Case No. 8846, Exhibit XV, shows that three (3) cows condemned for tuberculosis, owned by E. J. Bowdish, Cortland, two of which on postmortem were found to have localized condition, the remaining one to have no lesions, were appraised at \$180 and an indemnity of \$128.25 was granted, while only \$7.00 was returned to the State.

- (c) Comparison of weights of carcasses of animals slaughtered at Binghamton, Cortland and Albany slaughter houses and passed for food purposes shows: (Exhibit XVI, Treasurer's Statement, 1913, as furnished by Department of Agriculture).

NOTE.—It is reported that during the greater part of this period the Albany slaughter house had no facilities for weighing carcasses and that weights were estimated.

Place	Number slaughtered	Total weight, pounds	Average weight, pounds
Binghamton.	39	13,281	345
Cortland.	66	24,132	365
Albany.	258	76,670	297

- (d) Comparison of returns received for carcasses passed for food purposes show for the same lot:

Binghamton.	7½ cents per pound
Cortland.	6½ cents per pound
Albany.	5 cents per pound

- (e) Comparison of the average returns for hides were:

Binghamton.	\$6 75 each
Cortland.	5 71 each
Albany.	3 32 each

- (f) Comparison of charges for slaughtering and expenses were:

Binghamton.	\$3 06
Cortland.	2 00
Albany.	5 04

NOTE.—About the time of the aroused public interest in this subject, twenty-two (22) cattle were sent by the Department of Agriculture to the

New York Butchers' Dressed Meat Company for slaughter with the following return report:

Total weight of carcasses, 8,950 pounds; average weight, 407 pounds; average returns 9 1-3 cents per pound; average returns per hide, \$5.62; average returns per animal, \$43.50. (Exhibit XVII, Treasurer's Statement, 1913, as furnished by Department of Agriculture.)

(g) Of the eighty-nine (89) Cortland county reacting cows purchased by the Cortland Beef Company, sixty-six (66) of which are reported as passed for food purposes, a return was made to the State of \$1,848.28 for the fiscal year ending October 1, 1913. Of the remaining seventy-seven (77) animals condemned in Cortland county and slaughtered, fifty (50) passing for food purposes, a return was made to the Department of but \$431.68. It appears therefore that for the sixty-six (66) cattle purchased by the Cortland Beef Company, the average return of \$26.01 per animal was made to the State, whereas the fifty (50) remaining animals from Cortland county, not purchased by the company show a return of but \$306.06 or an average of \$6.12 each. (Exhibits III and XVI.)

(h) Case No. 9070.—Exhibit XV shows sixty-two (62) cows belonging to J. R. Hathaway, Homer, N. Y., were examined by Dr. J. B. Knapp, ten (10) of which were condemned and were appraised at \$685 by J. D. Edwards. Six (6) of the condemned cows are reported as having been "sent to William Holl, Homer, N. Y.," to be held under the Bang system and an indemnity of \$539.50 is shown to have been paid to Hathaway. (William Holl was at this time an employee on the Hathaway farm).

MILK POWDER

It is claimed that in 1915 there was produced in the State of New York approximately twelve million pounds of milk powder. To produce this quantity of dessicated milk solids required approximately one hundred million pounds of milk, which, at an average price of \$1.60 per hundred pounds, brought to the dairymen of the State \$1,600,000. This product of the dairies in the State of New York was effectually removed from competition with other producers of market milk and was necessarily of great advantage to the dairymen of the State. The development and perfection of the processes necessary to produce a satisfactory article of merchandise of this kind required large investment of capital, long study and most precise and careful methods. Large manufacturing plants have been established in certain sections of the State devoted to the manufacture of this article. It is probably the most advanced and satisfactory method of preserving the solids of milk

in their natural state that has yet been devised. It brings into the field an entirely new product which offers a comparatively inexpensive and satisfactory substitute for fluid milk, cheese or butter. Both the butter making process and the cheese making process had for their end the preservation from decay of milk solids as a sustaining article of food. The origin of the processes is concealed in the dawn of civilization. In those processes, the chemical qualities of the milk solids are changed and altered and are no longer capable of being restored to their original form. While immensely valuable as a food product, they are no longer available and suitable for human food in the form of fluid milk. They cannot supply the place of fluid milk. In the beginning, the butter and cheese processes were after all but crude attempts to preserve the life-sustaining milk solids for use as food at times and places when fluid milk could not be had, and permit of their being carried on long journeys.

Many improvements and refinements of the processes have been made, but the elemental processes remain as practiced when butter and cheese sustained the Tartar hordes that invaded Europe. It has remained for the chemist and business man of the twentieth century to develop and perfect the method by which milk solids may be preserved for long periods of time in practically the original chemical state. It may now be safely asserted that all the solids of the natural milk can be preserved for months in nearly any climate and transported to remote sections of the earth in their natural state. They may there be restored to the condition of fluid milk by the addition of the normal quantity of water merely. This is a scientific and industrial achievement of the first order. If economic development in the future permits these processes to be carried on, at an expense less than the freight charges on fluid milk, the time will come when the transportation of the 88 pounds of water in every 100 pounds of milk by freight will be obviated and only the milk solids transported. This may not be expected in the near future, but it may not be a result impossible to accomplish. Such a development will mean a complete revolution in the methods of supplying the city consumer with fluid milk.

The Merrell Soule Company of Syracuse now manufactures in various counties in this State many carloads of this milk powder which is sold and carried by freight to the larger butter factories of the West where the product is restored to the condition of fluid milk, practically, and used as fresh milk in the manufacture of creamery butter. It is there added to other collected butter fats to freshen and improve their quality and churned as a whole. The butter so manufactured is again reshipped to the cities of this State. The milk powder is also shipped in large volume to the tropics and many other places. By the addition of tepid water in the normal quantity to these separated milk solids, practically normal milk is reproduced which appears to have all the qualities of fresh milk or fresh cream. The powder itself can be preserved in unsealed containers, if kept reasonably dry, for longer than thirty days. While the container is sealed under the same conditions, it can be preserved for a sufficient length of time to be made available for daily use anywhere. The following description of these processes is given to the Committee by Professor George W. Cavanaugh of the State College of Agriculture at Cornell University, but this testimony does not comprise all the study of the Committee in the matter.

Professor CAVANAUGH, called and sworn, testified:

"For about ten years, I have been at the head of the Department of Agricultural Chemistry in the State College of Agriculture and during that period and before have studied the chemistry of milk. About ten years ago we had the opportunity of taking up a study of the manufacture of milk powder, and have been interested in that subject from that time until the present. The history of the production of milk powders or powdered milk goes back twenty or twenty-five years. If one looks over the patent records, he will find that patents have been taken out not only in this country, but in England, France and Germany as long as twenty-five years ago. Most of those have never materialized in a practical way. The practical development began some twelve or thirteen years ago along two general lines. First, the practice of drying local milk on a rotating heated surface of cylinders. These two cylinders rotating, impinge one on the other, and the

milk is put in between the two. The cylinders are heated indirectly with steam, and this thin film is dried during the process of rotation and then scraped off and then ground up by appropriate machinery and you have the milk powder. You have all the solids then, but not exactly in their original condition.

Milk is an emulsion, a solution, and it is further, something else that the modern physicist and chemist calls a colloid. I don't know how to define a colloid properly much better than to say it is about one-half solution. It is neither completely dissolved nor is it in what we know as a physical emulsion. The fat in milk is in the form of an emulsion. The sugar and the albumen and portions of the ash are in part solution. The casein or the curd is present in the form of a colloid, a kind of semi-solution. In the drying process I have described, unless certain precautions are taken, the properties of one or the other of these various constituents may be slightly altered. If the heat of the roller is too high some of the albumen may be coagulated, the same as boiling the white of an egg. Some of the casein of the milk may be partly precipitated, particularly if the milk happens to have an appreciable amount of acid, during the process of condensing this acid concentrates and due to the concentration of the acid and the heat there is a tendency for the casein to be precipitated or thrown out of its colloidal condition. If that result comes about, it is difficult to restore the milk solids to their original condition by the addition of water. You cannot say 'dissolve' because they were not all dissolved in the first place. It is not entirely proper to say re-emulsified, because they were not all emulsified. A name has been adopted to describe this process, that is, re-constitute. When these milk solids are dried at too high a temperature on the roll, not all of the solids can be re-constituted necessarily in their original condition.

"To overcome that some processes add a very small trace of an alkali to neutralize the acids. If the acid is neutralized, then the acid does not have this precipitating action on the casein and the product does become thoroughly well re-constituted. The acid used is ordinarily a trace of soda.

"About ten years ago, there was developed a process of another kind which seemed to overcome some of the difficulties in the way

of the process just described. That process in brief consists of blowing the milk in the form of as fine a spray as can be produced into a heated chamber under such conditions that the particles of the spray in falling, become completely evaporated, so that the spray enters as a liquid spray and falls to the floor as a dry powder. The apparatus is so arranged that a current of hot air passes through and carries out the moisture that evaporates from the milk. In this process when rightly conducted, there is no need of the addition of any alkali, because the evaporation from the particles of spray seems to be so rapid, that in spite of the heat of the air in which the evaporation is going on, there seems to be no curdling of the casein or coagulating of the albumen, and we have examined many samples that show that none of the properties of the original milk or any of its constituent parts is necessarily changed by this process of evaporation.

“The difficulty in both processes has been to dry the milk with all the fat in it. That difficulty seems to be a little greater in the roller process, and seems now to have been pretty well overcome on the spray process. On the roller process the fat globules tend to run together and smear together to some extent so that when the powder made in that fashion is re-constituted there is a little tendency for a layer of fat to appear on the surface of the re-constituted milk. The spray process seems to have overcome that so effectively that not only do they now dry whole milk, but are actually drying cream.

“As a food product, this powder can be valued directly in proportion to its solid contents with any other milk. Let us assume that milk solids are $12\frac{1}{2}$ per cent of the whole volume, as an average, or one-eighth, so that eight pounds of milk will yield on evaporation one pound of milk solids and inasmuch as a gallon of milk weighs eight pounds, possibly a little over, you can get approximately one pound of milk solids from one gallon of milk, so there is the same food value in one pound of this whole milk powder as in eight pounds of milk.

“Malted milk is a subject that must not be confused with powdered milk. The so-called malted milk is a product consisting of malt and milk and dried to a powder. They are not in the same line with these processes. They usually contain very little milk.

These processes are patented. The spray process is controlled by the Merrell Soule Company of Syracuse, I think.

"One of the principal products made is powdered skim milk, which has a large sale among bakers in the cities. They seem to find it cheaper to buy the skim milk and some other fat than to buy the whole milk, so that most of the concerns that make the powdered milk buy the whole milk from the farmers or milk producers and then sell two products, cream and the skim milk powder. The whole milk powder finds its market with the confectioners and ice-cream men and with the type of baker who is baking cakes, where he wants something a little superior to other type of fat. There are two or three large factories in the Western part of the State. Probably the total production of these powders in the State is about twelve million pounds annually. That would be about one hundred million pounds of milk. There are many other factories about the State. The factories I know have their own dairy inspection and their own veterinarian. The milk is received under the rules as nearly as may be laid down by the Board of Health of New York City. The milk for the production of the skim powder is first separated. Then the skim milk is pasteurized at a temperature that all dairymen use under conditions of good pasteurization. The skim milk is then condensed in the same way that condensed milk makers condense their milk, namely, in a vacuum pan and the condensed milk is then put through the spray process, the reason for that being it was found to be more economical to condense the skim milk in a condensing pan and then to spray than it was to spray the original milk. The capacity of the plant is increased thereby.

"Absolutely nothing is added to the natural milk in any way, shape or manner. The whole milk powder will not keep as long as the skim milk powder, as the fats tend to become rancid. Pasteurization prior to the spraying tends to kill any germs that are in the milk. It is always pasteurized before it is sprayed, as the keeping quality is increased by pasteurization.

"The elimination of the water and the drying process of course prevents the growth of germs. The dry powder is no culture at all until it becomes liquid again.

"Standing dry for a time it has been found that the number of bacteria decreases purely from lack of moisture.

"You can add water to this powder, raise cream and churn butter from it. The enzymes of milk are very sensitive to heat, more so than are bacteria. Those do not seem to be affected by the mere drying process. They are, however, affected by pasteurization or sterilization if the temperature is raised too high.

"The enzyme is a principle in milk that aids towards its digestion, something of the same general character as the pepsin in our stomachs, a natural and wholesome ferment. This powdered milk can be re-constituted that it will be difficult to distinguish it from un-treated pasteurized milk. In buying this milk, the manufacturers of this powder are in competition with the regular milk dealers, cheese makers and condensed milk makers. They buy in large quantities now."

ICE CREAM

The manufacture of ice cream has become an important industry in the State. It may well be said that commercial ice cream, as now produced and offered for sale, is a food product and a dairy product assuming an important rank at this time with butter, cheese or other form in which the food value of milk is made available for consumption. In the year 1913, John Gordon, of Buffalo, N. Y., then an officer of the Ice Cream Makers' Association and directly engaged in the industry, made the following statements during the proceedings of the New York State Dairy-men's Association, in an address to the assembled dairymen:

The ice cream industry has accomplished three great benefits for the dairy industry:

First, through the absorption of the milk surplus at a time when, if it followed the old channels, the market for dairy products would be shattered. It has equalized the value of dairy products, making that valuation more uniform the year round. The general level of the prices of dairy products has been raised by its influence and at the same time there has been a material reduction of the margin between high and low.

Second, the ice cream industry has rendered valuable every constituent part of milk, for not only is it an enormous user

of cream and milk, but it also consumes enormous quantities of condensed milk.

Third, by affording a market for great quantities of sweet cream, it is securing for the whole dairy industry milk and cream of better grade. It has made it more profitable for you to keep cows and it will make it still more profitable in the future. It has made the price for milk and cream more uniform the year round. It has made valuable every constituent part of your whole milk. *It has made skim milk too valuable for stock feed.*

The 1900 census valued dairy products at \$130,783,349; in 1909, they were valued at \$274,551,718, an increase of 109.9 per cent. The growth of the ice cream industry in part is responsible for this increase.

While there was considerably more than one hundred and fifty million gallons of ice cream manufactured this year in the United States, we will take that as a basis of figures showing the amount of dairy products which the ice cream industry uses annually.

The great bulk of commercial ice cream is made from milk, cream and whole condensed milk. The milk and cream are the basis of the ice cream flavor and the condensed milk, through its high total solid content, provides body and substance for the ice cream. On the basis mentioned, the ice cream industry used this year thirty million gallons, or two hundred and fifty million pounds of cream; two hundred fifty-five million pounds of whole milk, and fifteen million gallons, or one hundred and thirty-two million pounds of condensed. The cream represents one hundred and fifty million gallons of raw milk. The condensed represents forty-five million gallons of raw milk, and this added to the thirty million gallons of whole milk used and mixed with the cream and condensed makes a total of two hundred and twenty-five million gallons of whole milk. Taking fourteen cents as the average price paid per gallon, the ice cream industry paid the producer of milk \$31,500,000 for its raw materials during the year 1913. * * * The census report showed that

in 1899 there was sold over two and one-quarter billion pounds of skim milk against only three hundred and fifty-two million pounds in 1909. By another census, there will be scarcely any skim milk sold. This great decrease in the amount of skim milk marketed is due for a great part to the growth of the condensed milk industry and to the lessening number of whole milk creameries. * * * In 1899, there was produced 186,921,787 pounds of condensed and in 1909, there was produced 494,796,544 pounds,—an increase of 307,874,757 pounds, or of 164.7 per cent. The value of the condensed in 1899 was close to twelve million dollars, while in 1909, it was about \$33,500,000,—almost treble in value.

We can regard it of especial significance that more than half of the condensed milk manufactured in 1909, or two hundred and eighty million pounds, was unsweetened and it is this product which the ice cream manufacturer uses largely. * * * New York and Illinois produced 47.5 per cent. of the total in 1909; Ohio, Michigan, Pennsylvania and Wisconsin accounting for the great part of the remainder.

An approximate estimate would be that the ice cream industry uses something short of one-third of all the condensed milk manufactured yearly. * * * The responsibility for the correctness of the figures I give you must be divided between the Ice Cream Trade Journal, prominent ice cream manufacturers with whom I have talked, and myself.

In 1912, there was fifty million invested in ice cream factories and equipment. This figure, I am assured is really a low estimate and that seventy-five million is a conservative figure for the 1913 estimate.

In 1910 census, the factory valuation of butter was placed at about \$179,500,000. Figures that the ice cream industry could gather would show the factory valuation of its product to be about \$100,000,000. The ice cream industry must carry an enormous overhead charge the year round and yet do a paying business for only five months. I feel that the ice cream manufacturer who is making 10 per cent. year in and year out on his whole factory proposition is on an excellent footing. * * *

In addition to the \$31,500,000 which the ice cream industry paid the producer for the raw materials, it had to pay the creamery and condensery a handsome profit for assembling the whole milk and turning the greatest part of it into condensed milk and cream.

The average consumer probably realizes that ice cream is a substantial food, the justification of which belief is attested by the fact that commercial ice cream contains over 30 per cent total solids. * * * The ice cream manufacturers know what the public wants. It does not want an over-rich product because they cannot eat enough of it. If the public wanted a high butter fat content ice cream, then the manufacturers of a medium butter fat content product, now generally found on the market, would be in the minority. * * * When the ice cream man cuts his butter fat content, he adds condensed, and one is about as valuable as the other. If anything, condensed is more valuable because it allows the use of all the milk."

The Committee is of the opinion that the statements of Mr. Gordon being in the nature of an admission against interest, so far as it applies to the producer, were fairly accurate for the years in question. The value of skim milk that went into ice cream products represented many millions of dollars and has continued to represent many millions of dollars in value, which the consumer paid each year down to this date. It is not difficult, however, to establish the fact that the producers of milk in the State of New York received relatively no fair return for skim milk at the creameries during those years for the increased value of milk that resulted from this large market for the skim milk. The evidence before this Committee justifies the conclusion that more than one-half of the constituent parts of the commercial ice cream is made from condensed skim milk. The dairyman who brought his milk to the creamery engaged in manufacturing the condensed skim milk for the ice cream man delivered a product which had two substantial elements of value. First, the cream to be removed from it in the form of butter fat and sold as such. Second, the skim milk to be removed from it, turned into con-

densed milk and sold to the ice cream manufacturer. Nevertheless, the evidence before this Committee shows for a type instance that the Horseheads Creamery Company in July, 1916, extensively engaged in the manufacture of condensed skim milk or partially skim condensed milk, paid to the dairymen who brought their product to the plant for the butter fat, a June price approximating 29 cents per pound.

Nothing whatever was paid to the dairymen for the resulting skim milk which was promptly manufactured into condensed milk and sold to the ice cream manufacturer. It enabled the Horseheads Creamery Company and many others similarly operated, to supply the ice cream man with condensed skim milk, or so-called "half and half," at a low price, and that in turn enabled the commercial ice cream man to manufacture and sell his product to the consumer at a low price. Both the Creamery Company and the ice cream man were in a position to make substantial profit. There was a large demand for both their products. In order to supply this demand they needed and bought the dairymen's milk on the butter fat basis and at a low price, but it is obvious that the dairymen got no return whatsoever because of the increased demand for his product. The burdens imposed upon him and which are heretofore set out in this report, were in nowise lightened or affected by the large consumption of milk solids in the form of ice cream. Despite the assertion of Mr. Gordon, "it has made skim milk too valuable for stock feed," the dairymen throughout the State were still turning over to the creamery men this product on a stock feed basis. Everybody except the dairyman was making something on the transaction and the ice cream man modestly stated that he would be satisfied with a 10 per cent. profit, but the dairyman was not considered at all.

ICE CREAM MADE FROM SKIM MILK SOLIDS

The use of milk from which the butter fat has been taken in the manufacture of ice cream, in the judgment of this Committee, is wholly justified and beneficial both to the dairy industry and the consumer, always providing that the dairymen's needs are considered and he is permitted to receive the market value for his

product. Manufacturers early discovered that no better substitutes could be used to build up the body of ice cream than the natural milk solids. All persons who have studied food values agree that these milk solids, exclusive of butter fat, are a very valuable and readily available form of food. There is no other food substance in daily use that can be procured at the same price having a greater food value than these so-called skim milk solids, or milk solids other than fat. At first glance, it may suggest itself that the use of extensive quantities of these solids in the manufacture of ice cream were injurious to the dairymen in that they were a substitute for butter fat, but we believe a further consideration of the proposition will lead to a different conclusion. Ice cream made wholly or largely of cream or butter fat must necessarily command a price far in advance of the present prices at which commercial ice cream is sold.

The modern commercial ice cream, if properly made out of skim milk solids, has become and is, a useful article for daily consumption. There is no food substance so desirable for use as the milk solids from which the butter fat has been taken. They are most wholesome and nutritious. No desirable substitute suggests itself. The use and constantly increasing use of the milk solids for this purpose should, and must necessarily, when the subject is fully understood, add greatly to the value of the dairymen's product. It only remains for the dairymen to thoroughly understand the question to ascertain the market value and thereafter secure for himself a portion of the increased value which his product has, which up to this time he has failed to do. If thereby the consumer pays a slight advance for the commercial ice cream, he is in no way injured, or if the ice cream man's profits are reduced to something below 10 per cent., he can still well afford to continue in the business, because capital is satisfied with a less net return. In order to promote and encourage the dairy industry in the State these profits should be shared to some extent with the dairymen.

UNJUSTIFIED FEAR OF THE ICE CREAM MANUFACTURER

In examining into this subject throughout the State, the Committee has found the commercial ice cream manufacturer timid and frightened lest it should be made known to his customers that the body of his product was built up of milk solids other than butter fat. In other words, he has been fearful to have it disclosed that it was made largely out of condensed skim milk. This fear, we believe, is entirely unjustified. We think no greater advantage should come to the industry as a whole than to make it public and to publicly advertise in the papers that the products which is being sold to the consumer at from 55 to 85 cents per gallon, were largely built up of milk solids other than butter fat. The consumer must eventually know, and has the right to know, what substances are used to make the body of the product that is being used more and more in the household and for children. He must know, unless the retail dealer successfully conceals it by charging an exorbitant price, that it could not be made from cream. The consumer also could readily be made to understand that no more wholesome or safe product could be used either for adults or children than the milk solids which are being actually used. It will, therefore, be seen that there is no sound reason why the so-called "skim condensed" should not be widely advertised as the substance which practically makes the body of the average commercial ice cream. That fact being well established, everybody of ordinary intelligence will concede that the product is one highly to be desired as food and entirely safe and beneficial for family use. We are of the opinion that past beliefs, attitudes and practices of the ice cream manufacturer on this point are not justified and not beneficial to the business.

USE OF FRAUDULENT DYE-STUFFS

Believing that it was necessary to convince the public that the so-called commercial ice cream was really made of cream, many manufacturers of commercial ice cream have been induced to adopt practices which are believed to be unwholesome and injurious to the public health. Assuming that the public must be allowed to believe that ice cream was really made from cream, a large num-

ber of manufacturers of the commercial product have constantly dyed, or, as one manufacturer described it, "painted," the whole some white milk solids with coal tar dyes.

The dye-stuff salesman, looking for a market, readily created his "buttercup yellow" which he sells to the commercial ice cream man at prices ranging from \$6 to \$15 per pound. These he induced the ice cream manufacturer to use. The result is that a perfectly wholesome article of food is adulterated, with what many people regard as a mild poison, in order to deceive the eye and allow the consumer to believe that he was buying at 75 cents a gallon ice cream made of butter fat. It is very doubtful if ice cream made entirely of butter fat would be more wholesome or more desirable as food than ice cream made very largely of skim milk solids with a due proportion of butter fat; at least, the product manufactured largely from naked milk solids was desirable as a food product and equally wholesome. It does not become at all unwholesome until the dyeing process enters in, when its use becomes at once questionable.

USE OF DYE-STUFFS IN FOOD

There can be no necessary use for mineral dye stuffs of any kind in any food product. The dye-stuff dealer and the ice cream man answer, "Our buttercup yellow is certified to be lawful for use in food stuffs by the United States Department of Agriculture and therefore we are justified in using it." This means that buttercup yellow and other similar preparations are "certified" by the United States Department to be permitted to be used. It must be remembered that the department has never certified that they are wholesome or healthful. The utmost that any disinterested person has ever asserted as to the use of such products, is that their unwholesomeness or the possible injurious effects of some of them have never been established. That they are beneficial to health is claimed by none competent to speak. That they are all positively harmful, whether certified or uncertified, is claimed by many. They are invariably used to deceive the purchaser and for no other purpose whatsoever. Their use in food stuffs is contrary

to good practice and the public health and should be absolutely prohibited by law. In reference to this matter a decision of the Court of Appeals of this State may have an important bearing.

DECISION IN THE VINEGAR CASE

In the case of *People v. Gerard*, 145 N. Y. 106-110, the Court of Appeals of this State in substance held:

“Adding a foreign and artificial ingredient to a food product, even for the purposes of color merely, is in effect an adulteration and the Legislature has the power absolutely to prohibit it.”

Chapter 515 of the Laws of 1889, provide:

“No person shall manufacture, produce, sell or keep for sale, any vinegar which shall contain any preparation injurious to health, *or any artificial coloring matter.*”

Justice Finch, writing the prevailing opinion, says:

“It is evident that the last clause has relation to the prevention of fraud, not only because of the form and mode of expression, but also because if limited to an effect upon the public health, it would become a mere useless repetition. Any ingredient so injurious had already been prohibited and the further limitation must be assumed to have a further purpose and relate to the prevention of fraud in the production and sale of vinegar. * * * The prohibition is against the fraud of a false color. * * * The greed of profit which has adulterated or disguised almost every article of food, led to the devise of coloring so as to change its appearance from almost white to a brown or amber color. * * * Thus changed the new product might easily deceive purchasers.

Obviously the artificial coloring matter is used for some purpose. It adds to the cost and labor of preparation and such expense would not be incurred unless it improved the saleable quality of the article. The coloring matter does not affect the taste or actual quality of the vinegar when as here it is brown sugar or caramel that is used, but it does change the appearance. It masks the truth; it effects a disguise; it

naturally deceives and is intended to deceive for the new color is that of cider vinegar and enables the substituted product to be foisted upon those who might prefer and seek the old. It is apparent that the vinegar was colored for the purposes of deception and to divert the buyer.

The Legislature had a right to forbid that device and put a stop to the fraud. They might forbid specially the use of the coloring matter creating a resemblance to cider vinegar, or accomplish the same purpose by forbidding the use of any coloring whatever. The Legislature might make the prohibition absolute for two reasons: One, the difficulty of enforcing a special provision limited narrowly to an imitation with intent to deceive, in which event there would always be a question of fact more or less hampering the effective execution of the law; *and the other that in tampering with food products which adds ingredients not natural or essential is fraught with danger to the public health*, or at least involves the intent and result of a fraud upon the community. *Food should be pure, absolutely and unquestionably pure. No tricks should be played with it.* The Legislature may resolutely protect it. No artificial color can ever be added to distilled vinegar for any good or honest purpose that I can imagine. In so serious a matter as the absolute purity of food, we ought not to say that a general law which simply compels that absolute purity is beyond the power of the Legislature. There can be no vested right to deceive the public.

(People v. Gerard, 145 N. Y. 106-110.)

Conclusion

When the illuminating reasoning of Justice Finch is applied to the use of "certified" coal tar dyes in food products of any kind, there would seem to be no reason why the Legislature of the State of New York should not, by an absolute general law, prevent the "playing of tricks" upon the consumers of this State in the future. Either such an act should be passed, or in the event of the creation of a commission having charge and control of the supply of food stuffs in the State, such commission should be un-

questionably empowered to prohibit by order the use of coal tar dyes in any form in any food products sold in this State, to the end that the food supplied to the people of this State should comply with the requirements of the opinion above quoted and be "absolutely and unquestionably pure."

CONCENTRATED COMMERCIAL FEEDING STUFFS.

A wide field for fraudulent operation exists in the selling of concentrated feeding stuffs to the dairymen of this State. For many years past the dairymen of this State have found it necessary to bring to the dairy farms large quantities of grain feeds, which they bought of feed dealers scattered throughout the State. A widespread propaganda was instituted by various means to show to a dairyman of the State the value of different sorts of concentrated feeds. They were understood to furnish the dairymen with stock food in concentrated form that his farm did not produce and at a less price than he was able to produce them. Of course, the dairyman understood the use of bran and middlings and he rapidly learned the food value of cottonseed meal, distillers grain, gluten, and the so-called molasses by-product from the sugar refinery. All these had a food value and the market furnished an abundant supply. These by-products were purchased at a less cost than the dairyman could produce natural grains for stock. But the field was too attractive to be permitted to be occupied exclusively by legitimate business. Abundant opportunities for large profits were disclosed to the type which is not satisfied with legitimate profits in merchandizing sound goods at their actual value. Many gentlemen conceived the idea that by putting on the market concentrated dairy foods consisting of various ingredients or alleged ingredients useful for cattle feed, that large profits might be made by adulterating those feeds with inferior or worthless articles.

The idea was followed by prompt and effective action. The consequence has been that the dairy sections of the State were and are flooded with branded mixed dairy foods, a great number of which are shown upon analysis to contain a large amount of worthless material and are a fraud upon the dairyman who buys them. If the sales of fraudulent patent medicine can be designated as the

great American fraud, the sales of these concentrated commercial feeding stuffs may well be branded as the great dairyman's fraud. It is not going too far to assert that many thousands of dollars are yearly paid out by the dairymen of the State of New York for dirt, dust, straw and rubbish, permitted to be sold under some high-sounding name as a valuable cattle food, sure to increase the production of his dairy. An examination of the records of the Department of Agriculture and of the New York State Experiment Station leads to the conclusion that almost everything is used in these feeds, the nature of which can be successfully concealed.

The present provisions of the Agricultural Law requiring that the bag be marked with the protein and fibre contents, etc., is ineffectual to prevent the successful operation of this fraud.

HENRY M. WHITBECK of Lockport, N. Y., being called before the Committee, testified:

"I am a manufacturer of flour and operate the Thompson Milling Company and the Federal Milling Company in Lockport. Our business is to manufacture wheat into flour. We sell our bran and middlings to the dairymen as dairy feed and in no other form. I know something about the compounding of dairy foods by specialists whereby they take a little bran, a little middlings, and oat hulls, and elevator dust, and molasses, and make a special brand of high-class milk producing feed apparently of very inferior materials. I have been urged to go in the manufacture of that class of feeds, but I have had nothing to do with it. Naturally, if the inferior materials can be combined and covered up and sold for a high price to the dairyman as a specially balanced ration warranted to produce a high flow of milk, there will be a great deal of profit. But we sold only the middlings and bran for just what they are. I have had these machinery men come here and urge us to go in the manufacture of those goods, and they would have a formula showing so much screenings, oat hulls, smut dust, peanut shucks, and other stuff at a profit of \$5 per ton; but we haven't the room or time. We have our hands full with the flour business."

WHITMAN H. JORDAN, called as a witness, testified:

"I am director of the New York Agricultural Experiment Station. I think perhaps my testimony would be most useful in re-

gard to the cattle food trade in this State. One of the prominent characteristics of the cattle food trade in recent years has been the introduction of by-products that formerly were cast aside as of little value. These by-products include ground corn cobs, oat hulls and screenings from wheat and other grain. When I say oat hulls, I might include oat clippings in the list and these have been introduced into the so-called compounded feeds very freely. So that with the majority of the brands of feeds sold in this State, proprietary brands contain one or more of these inferior ingredients, oat hulls, oat clippings, screenings, and ground corn cobs. Here is a dairy feed with molasses. You will find several of these, but here is a particular one. It is guaranteed to contain 16.5 per cent. protein; 3.5 per cent. of fat, and the maximum of 12 per cent. of fibre. The law requires that the maximum fibre should be guaranteed because an increase of fibre, crude fibre, decreases digestibility, and crude fibre is a common constituent of the most of those inferior ingredients like oat hulls and corn cobs, so that the object of the law is to require of the manufacturer a statement that the fibre shall not go beyond a certain per cent., and he is to hold to that that guarantee through inspection by the State Department of Agriculture. Now, the ingredients of those feeds were cottonseed meal, corn, gluten feed, oat clippings, 20 per cent. in that feed, ground and bolted grain screenings, 35 per cent. There is 55 per cent. of inferior material. A portion of the screenings may be of value, but screenings vary from year to year in weed seeds, in dirt, or corn, gluten feed, oat clippings, 20 per cent. in that feed, ground and bolted grain screenings, 35 per cent. There is 55 per cent. of inferior material. A portion of the screenings may be of value, but screenings vary from year to year in weed seeds, in dirt, or other not standard things so you cannot place any definite value on material of that kind. The price of this particular feed is not stated, but a feed containing the same ingredients and guaranteed analysis was sold in Pennsylvania in 1914 for from \$25 to \$29 per ton, the average selling price being \$26.74. Nearly 50 per cent. of that money was lost. No. 2, wet bran with ground screenings, ground corn cob, 30 per cent., and the selling price was \$28 per ton. Food No. 3 had a trace of cottonseed meal, puffed rice,

ground puffed wheat, oat meal mill by-products, oat hulls, oat shorts, oat middlings, unquestionably chiefly hulls, and the selling price of that was \$30 to \$32 per ton. Feed No. 4, alfalfa meal, cracked corn, crushed oats, cottonseed meal, oat meal mill by-products, or hulls, oat shorts, oat middlings, molasses, selling price, \$33 to \$34 a ton. This may be an indictment of the feeding stuffs trade, but there is no sort of question that there are protein mixtures with the standard things in, that are made in order to cover them up and sell them at prices which they otherwise could not get for that sort of inferior material. There is no question about that. And while it is all right for the farmer to feed those things, if he knows what he is feeding, he should not pay grain prices for them; that is, the price of standard feeds, like gluten, bran or corn meal, linseed meal or cottonseed meal, or feeds of that class. They have nothing covered up in them and should be bought in their natural state.

“As to this alfalfa meal, I wish to make a remark about that. Alfalfa is a feeding stuff that has come to have a perspective in the mind of the agricultural public altogether too much enlarged. These alfalfa hulls are worth no more than first-class clover hay. At the same time the feed men are having this alfalfa ground and selling it to our farmers in these mixtures at \$25 to \$30 per ton, and yet even this alfalfa is better than a whole lot of things that are used in them. The up-shot of the whole thing is that the dairy-men should avoid these prepared feeds and feed straight grain. We have preached that from the platform for many years. I cannot understand how these people are selling hundreds of dollars worth of this worthless stuff every day.

The molasses foods have lent themselves to this sort of mixing because the molasses obscures the mixture and so they have been mixing more and more of that sort of inferior materials in molasses feeds than everything else. We issue a bulletin every year giving the ingredients and we have warned the farmers that oat hulls have low digestibility, between 30 and 40 per cent. At first, we informed them against weed seeds because we discovered that the weed seed would germinate, but the warnings were insufficient because the manufacturers immediately cooked them or changed the name. Refuse oats by-product is worthless as a food. It has no

more value than the straw refuse around the barn. The manufacturer under the present law can put anything he wants to into these feeds. He only has to hold it up to his guarantee as to protein, etc. All he has got to do is to keep up to what he said he would put in it of those substances. All this compounded food is being sold at a price relatively higher than the market value of the ground grains. It is generally sold at the price of sound grains plus the charge for mixing. The farmer can buy the clear grains and mix himself cheaper than the miller can."

The Committee has found that the grain elevators in Buffalo are swept regularly and the dirt and debris collected. This dirt and debris is in turn sold to the manufacturers of these fraudulent feeds, who, in turn, sell it to the dairymen plus a charge for mixing at a price nearly equivalent to the price of the grain that was stored in these elevators. Upon analysis, this dust may show that it has accumulated a part of the protein from the grain stored in the elevator and may yield a percentage of protein on a test, but many hundreds of pounds of dirt which yield nothing is sold with it at the same price. Oat hulls are straw and nothing else. The farmer has an abundance of it about his barn, yet many thousands of tons of the same straw are sold by the concentrated feed men back to the farmers under the disguise of a dairy food mixed and colored with molasses. This is a most excellent and thriving business. It brings large profits to those engaged in it and it is very evident that out of the large profits resulting from this fraudulent business, strenuous opposition will be made to any action on the part of the State that will effectually prevent the dairymen from being further defrauded and imposed upon. Strong reasons will be urged before the Legislature why the traffic should not be interfered with. The sound underlying reason for the activity of these gentlemen will be that the business of defrauding the dairymen is too profitable to be interfered with by an effective law.

This State has attempted to protect the dairymen but has not succeeded. Thousands of samples of grain are analyzed yearly at the Experiment Station. The samples are taken from the stores of grain dealers. The record shows that very many of these samples consist in part of highly fraudulent materials. By

the time the sample reaches the Experiment Station and is analyzed and its fraudulent character established thousands of dollars have been taken from the dairymen in payment for the stuff. Thus, the State demonstrates by its own work, that the law is ineffective in preventing fraud, and when the fraudulent character of an article is established, it simply re-appears under a new name and with a still higher guarantee of its milk producing quality. It is a confusion of weakness that fraud should so easily flourish in the State and victimize a class of producers already burdened with the necessary costs of the industry. It seems hardly possible that it could have been permitted to grow to its present extent. It seems unnecessary to say that such laws should be passed as would protect the dairymen and prevent further operations of this kind, although, as above suggested, such a proposed law will meet with bitter opposition from those engaged in the traffic. This opposition will naturally arise from the fear of losing the great profits which have resulted from these fraudulent practices.

In the judgment of the Committee, it is no sufficient answer to this proposition to say that the dairyman should protect himself from these frauds. It is self-evident that he has not and does not protect himself. It is very doubtful if any class of men similarly situated without the effective action of the State could protect themselves. It is doubtful if the present branding on the bag required by the State, does not aid in the perpetration of the fraud in that without much regard to the meaning of the scientific terms, the indifferent and careless dairyman is not led to believe that in some way the Department of Agriculture guarantees the fraudulent dairy food to be useful and valuable. This again suggests that a competent and active department clothed with power and means to promptly reach these fraudulent practices should be created.

RETAIL FEED DEALERS' ASSOCIATION

The foregoing discussion naturally lends itself to a report on the activities of a certain group of retail feed dealers in the State who have banded themselves together into an association or many associations, known as Feed Dealers' Associations, but having a common purpose and end. This end can possibly be described as

a means to prevent the dairymen of the State buying cattle food of any type or kind except through and by means of a designated dealer in each community whose practices and methods should be satisfactory to the State Association. An examination of the record of these feed dealers' associations disclose the most abhorrent and immoral practices, aims and methods. They sought by a system of blacklisting, to frighten and terrorize all millers and wholesale dealers in grain, from dealing in any way with the local grange, a co-operative society or an individual dairyman. The organization was intended to be a very live one and to keep in constant daily touch with the business of all feed dealers in the State and with the private business of every dairyman in the State, and of every co-operative society or dairyman's society or grange. They also traced every car shipment where possible to the dairyman, grange or co-operative society, to ascertain what jobber, dealer or miller had sold the same. Having located the seller, he was approached repeatedly, first by mild suggestions, then by darker hints, to the effect that the association would prevent the handling of his products by any grain dealers in the Eastern States, unless he forthwith discontinued the selling of his product in wholesale quantities to any person, except those designated by the Association. Even general store keepers were prohibited from buying grain for neighboring dairymen.

The Borden Company at one time undertook to supply the dairymen in its neighborhood with grain at wholesale prices, but this movement was effectually blocked by threats of trouble made to the company through this association. The membership of the association was relatively unimportant; in fact, if it had assembled every retail grain dealer in the State of New York, its membership and capital investment would still have been insignificant, and yet its methods were singularly effective; so effective, that the Committee finds it difficult to believe that its methods were not prompted, and its purposes aided, by the larger and more sinister associations engaged in the manufacture and distribution of fraudulent feed stuffs, which are more particularly described heretofore. 'It was disclosed that the State Association was in receipt of some moneys from the agents of the manufacturing and distributing concerns. To what extent funds

were furnished and assistance given from the manufacturers or distributors to this association, the Committee is not able to state, but that there was a vital connection is undisputed and abundantly established in the record.

METHODS OF THIS ASSOCIATION

Coercion and libel were two of the instrumentalities used by the association to attain its ends. If a co-operative farmer's association succeeded in securing a carload or two of grain or cattle feed, a letter was sent promptly to the miller who made the sale, advising him that the managers of the co-operative association were irresponsible, and hinting that the collection of the purchase price would be difficult, or that the trade connection would be worthless. If a car was found enroute, if possible an attempt was made to divert the car from the purchaser and have it delivered to some local dealer. If a milling company or distributor refused to listen to the suggestions of the association, the officers or agents of the association, travelled about from town to town, assemble the grain dealers and advised them that they should not buy from the miller or distributor in question, that they should each write to him that the reason he had lost their business was that he had made sales of grain in wholesale quantities in an open market to individuals not favored by the association. The association desired to prevent the spread of information as to fraudulent dairy foods through the agriculture extension work and the farm bureaus. They easily foresaw that such information would interfere with illegitimate profits and they undertook a campaign in various counties of the State to prevent the operations of the Farm Bureau. If any given Farm Bureau agent was active in trying to secure dairy foods at a lower cost to the farmers in his county, they sought to destroy him both by false statements and untruthful representations, and by active political work with the boards of supervisors. Their records disclose that they boasted to one another of their success in removing a farm agent in Delaware county. Many dairymen came before the Committee, who, having capital and requiring a large amount of dairy food, had been accustomed to buy direct of the wholesaler in carload lots, but who

had found his source of supply cut off by the activities of these grain dealers' associations.

In order to magnify their numbers, there existed first the State Association, with less than four hundred acknowledged members. They then formed in each community where possible, a local association consisting of from three to ten members. Many of these associations were scattered throughout the State. In the event that they wished to bring pressure upon a given miller or distributor to close the market to the dairymen, a grange, or a co-operative society, the State Association first wrote a letter containing carefully worded threats to induce him to desist from further sales. A letter was then sent from each local association containing substantially the same matter. In this way, this small group, was able to frighten the milling company or distributor into the belief that his action was opposed by a great multitude of men and his business seriously threatened by their ill will.

Naturally, this made it difficult, and in many instances, absolutely impossible for the individual dairyman, grange or co-operative society, to purchase cattle foods in the open market. In other words, this little group of men with a relatively insignificant capital, sought to impose tribute on all the great dairy industry of the State of New York and making it difficult for the dairymen to do business except under their direction and control. They had the courage to approach the Directors of Farm Bureaus and threaten that unless they conducted the Farm Bureau operations in accordance with their wishes, they would be destroyed. They succeeded in curtailing the activities of the Farm Bureau by untruthful statements to the Department of Agriculture at Washington.

All of the statements here made are abundantly established by the correspondence over the hands of the officers and agents of this association, which was made a part of the record of the proceedings of this Committee. This correspondence and evidence has been turned over to the Attorney-General of the State of New York that he may be enabled to act in accordance with the law of the State. It may be added, however, that the purpose of these men and this association was wholly and entirely sordid and selfish. They

sought not only the control of their own product, but they sought to foreclose the market to all but themselves, not because of any economic necessity, but simply that their profits might be enlarged and that every man, whether he were willing or not, might be compelled to deal through their particular favored store. Some of their methods are revealed in small part by their correspondence, which is included in this report, not for the purpose of disclosing the full record of their activities, but in order that some idea of their purposes and aims may be established.

LETTER SENT TO MEMBERS WHO JOINED THE ASSOCIATION AT ALBANY CONVENTION, JUNE 21, 22, 23.

WATERVILLE, N. Y., June 30, 1916.

WEST END FEED CO., *Albany, N. Y.:*

Gentlemen.—This is an acknowledgment of your interest in the New York State Feed Dealers' Association as evidenced by your taking out membership in the same at our recent convention at Albany.

We were more than gratified at the very large attendance by dealers from all over the State and appreciate very much indeed your personal help in making the meeting the success that must be apparent to all who were present.

There can be no question but that the cementing of the dealers of the State together in an organization of this kind, which has already drawn into sympathy with us such factors as the American Feed Manufacturers' Association, as well as the trade journals, is going to prove of inestimable value to the business of the retail dealer in feed and grain.

We should not fail, however, in making purchases of manufacturers and jobbers to make it plain to them that they must be loyal to the legitimate dealer everywhere, and that we will not buy of them even if fair with us in some particular locality, but at the same time selling direct in other sections.

By adhering strictly to this policy it will redound to our credit and influence as a body.

If at any time you wish information or assistance, do not hesitate to call on us.

Again thanking you for your personal interest and co-operation, we are,

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., August 16, 1915.

MR. CLYDE ANTHONY, *Milan, Pa.:*

Dear Sir.—At a recent meeting of the Tri-State Retail Feed Dealers' Association, held at Utica, N. Y., it was deemed advisable to reduce the territorial limitations of that association.

Reasons for said action had been previously announced and were considered at that meeting with the result that the name of the association was changed to New York State Retail Feed Dealers' Association.

This change was not made with the idea of dropping any present members of the association, as the Pennsylvania members were considered as valuable as any in the organization of the original association, and now the change in by-laws in making it a state association, will not be so arranged as to eliminate any present member, and it is, therefore, hoped that the members from Pennsylvania may see fit to remain members of said association and attend future meetings and take part therein as on former occasions.

We, as New York members, were face to face with a political problem in the co-operative branch of the State Agricultural Bureau that had to be met politically and the same has been relieved since this action.

That we were justified in our action is shown by the influx of new members who had demanded that this be a state association, and we are now asking our Pennsylvania friends to look at this matter in the friendly way in which the same was intended.

It was simply a business proposition whether we would stand for taxation by the State for the destruction of our own business or not, and to overcome the same, we needed more local, political strength.

Hoping this satisfactorily explains itself and that you and all other Pennsylvania members will not feel that you were ousted from the old Tri-State, we remain,

Very respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., January 14, 1916.

J. E. BARTLETT Co., *Jackson, Mich.:*

Gentlemen.—There has been unloaded at this station car No. 62754 C. M. & St. Paul, containing distillers' grains from you shipped to the Farmers' Co-operative Company, which is a direct buying concern, unloading from car to farmers, to the injury of the local dealer.

Inasmuch as the writer is a regular legitimate dealer here, maintaining an establishment, employing men with families, paying large taxes and honestly endeavoring to make a living for himself and family, I take the liberty of writing you with the purpose of ascertaining if you appreciated the status of this body of consumers, nothing more or less, clubbed together to take advantage of the dealer who has always extended courtesies to them and whom, according to the common ethics of business, it must be admitted is entitled to the patronage of his community.

I need not say that your action in shipping this car here to a body of consumers is in direct antagonism to me as a dealer and is hardly in line with statements made in former correspondence with me as secretary of the New York State Retail Feed Dealers' Association as to your policy towards direct selling and, therefore, I am inclined at the present moment to believe that in making the sale and shipment of this car here you were not really aware of its manner of disposal nor the purpose of those purchasing it, which I assure you is none other than to side-step or put one over on the dealer and is precisely in line with the spirit which prompts certain

individuals to deal with mail order houses whom you well know are not contributors to the upkeep or general welfare of any community, either from a social or financial standpoint.

The organization, if it may be called such, to whom you have sold this car is not a popular one and I can assure you does not have the sympathy of the majority of people, either farmers or business interests. It is composed of a few disgruntled ones, such as you find everywhere, and who either want something for nothing, or else are so selfish that they do not wish to see anyone else make any progress and who would turn you down as quickly as us if someone came along and offered them any old thing at a little under your price.

The whole thing is begotten of a spirit pregnant with hostility to, rather than encouragement of community interest, and has not only affected the feed dealer, but has extended its baneful influence to every other class of business in our midst or in any other town where such propositions are being imposed.

The State Association of Retail Feed Dealers is not altogether altruistic in that it is looking after its own interests altogether. We are working in a co-operative spirit both with the manufacturer and consumer and as respects the latter, we propose to see that all goods are sold strictly in compliance with State and Federal laws in so far as we are able to do so, and in this connection the writer has had called to his attention the fact that the car of distillers' grains shipped here by your firm were in sacks and that there were no marks on the sacks nor tags applied indicating or specifying the quality or brand of goods, analysis and weight, and while the writer saw a number of these sacks on farmers' sleighs, also in the car, which would bear out the intimation, I do not wish to even suggest the thought of complaint, but simply desire to impress upon you that we are not a one-sided organization by any means. We believe in living and let live and we also believe that there is business enough for all, but that it should be conducted along proper channels and that is through the legitimate dealer.

No manufacturer or jobber can reasonably expect to sell every dealer, and the idea that a dealer can be forced to handle any feed is absurd, because that principle can be worked to the disadvantage of those who attempt to carry it out in that you, for instance, might have a dealer customer who, like many others, is giving you a large share of his business, when along comes another manufacturer or jobber who might insist that your customer must handle some of his goods which are similar and represented equally as good and possibly so, with the threat that if he does not he will go out and sell direct. Now, in such an event, where do you get off?

I simply mention the above as an illustration. We sell our feeds on a quality basis; have facilities for State and private laboratory test and we will place our goods side of anything offered on the market and as low, if not a little lower, for we sell for cash.

I shall be very glad to receive the favor of a reply.

Yours respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

THE J. E. BARTLETT CO.

DRIED SALVAGE GRAINS.

WHEAT, CORN, OATS, BARLEY.

THE RED MILL, JACKSON, MICHIGAN.

Capital, \$115,000.00.

Members

Board of Commerce.

Interstate Cotton Seed Crushers'
Association.Michigan Grain and Hay Dealers'
Association.*Distributing Stations*

Jackson, Mich.

Toledo, Ohio.

Chicago, Ill.

Use Robinson's Code.

Use Yopp's Code.

Long Distance Phones.

Bell 2600.

Citizen 217

February 5, 1916.

MR. H. M. KING, Waterville, N. Y.:

Dear Sir.—This will acknowledge your letter of January 14th. The writer was out of the city almost continuously during January, which has occasioned the delay in replying to your letter.

We appreciate the frankness and fairness manifested in your letter. We do protect the dealer wherever we have a dealer's trade. We have over a thousand live dealers' accounts on our books. We have traded with these people a long time—with some of them for over 20 years.

We have found in your district, by sending our salesmen through, that it is almost impossible to introduce a new line of feeds through the dealers. We do not blame the dealer in the least. He does not wish to take the time to do the talking necessary to introduce a new feed, but we do not feel satisfied in simply being shut out and have therefore advertised and have sold and are selling an occasional car in your district, but we are ready at any and all times to do this business through the dealer and give him a commission of a dollar per ton as soon as he is ready to handle our account and give us an occasional car.

If this is not the right attitude for us to take, how are we going to introduce our line? We would welcome any suggestion you have to offer.

Very truly yours,

THE J. E. BARTLETT CO.,

JEB:B

J. E. BARTLETT.

THE J. E. BARTLETT CO.

DRIED SALVAGE GRAINS.

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Long Distance Phones

Bell 2600..

Citizen 217

March 11, 1916.

MR. H. M. KING, *Secretary, New York State Retail Feed Dealers' Assn., Waterville, N. Y.:*

Dear Sir.—According to our records you have never advised us whether or not the Co-operative Association in your city has a store or is merely a number of farmers clubbed together to buy feed at wholesale prices. We believe if they have a store in your city they have a perfect right to buy feed at the best price obtainable. Furthermore, we wish to say that we have a large sale on National Gluten in your city. If it is antagonistic to you for us to sell the Co-operative Company, why don't you accept the exclusive agency for our line and guarantee to buy as many cars of Gluten feed as they will?

The output of National Gluten feed is large and we are compelled to furnish the mills several shipping instructions daily in order to take care of it properly. If we followed your views and agreed to refuse to sell anyone in your town simply because you refuse to handle it, it would be impossible for us to make disposition of the feed.

For your interest, advise that National Gluten feed is the highest grade of distiller's grain manufactured. It is guaranteed 31 per cent. protein and according to several state experimental stations will analyze nearly 34 per cent. It has apparently 90 per cent. corn, is palatable and highly digestible and can be fed in any quantity without harmful effects. This is the reason why when it is once introduced in a territory it retains the trade.

Are you interested in handling a feed of quality—a feed that will please your trade and bring you more unsolicited business? Such feeds make satisfied customers.

Give National Gluten feed consideration and advise immediately whether or not you wish to secure the agency. Let's work together and not be arbitrary.

Yours very truly,

THE J. E. BARTLETT COMPANY,

C. A. SMITH.

CAS/KC

WATERVILLE, N. Y., March 23, 1916.

J. E. BARTLETT Co., Jackson, Mich.:

Gentlemen.—Referring to yours of March 11th.

I have advised you in previous correspondence that this Co-operative Association was simply unloading stuff from the car to consumers direct.

You have shipped three cars to these people here at Waterville, which have been distributed in this manner.

The shipment of goods to them which are being distributed in this way is *antagonistic* to me as a dealer maintaining an establishment to do business legitimately and is directly contrary to assertions made by you in previous correspondence that you wished to do business through the regular dealers and that if after making effort to interest the regular dealer you failed, then you would sell direct and thereupon the dealer would listen to your argument. This "argument," however, won't work in this State.

I most assuredly will not accept the exclusive agency for National Gluten nor guarantee to buy as many cars as they will. Such a proposition is repugnant to me now, especially so since you have repudiated the representations in your previous correspondence and, furthermore, I would not accept such a proposition from any concern.

You never solicited me in any way to handle your goods and you directly placed them in the hands of a direct selling agency.

I don't doubt but that the output of National Gluten is of some volume; so also is the output of other distilleries, but the agencies of such distilleries are able to place same through proper channels of distribution. Your salesmanship and the quality of your goods will take care of your portion of the output of the distillery whose account you handle through legitimate channels the same as others do.

Your National Gluten is not superior to a number of other brands of distiller's grains that I might mention. I am interested in feeds of quality and always have been. I handle only such feeds and believe I know and am in a position to know or to very soon determine as to any feed.

You say "Let's work together and not be arbitrary." That is just exactly what we tried to do with you when we first took up the matter of direct selling and your advertising to sell direct.

We had only the best of motives and there was no spirit of arbitrariness or vindictiveness on our part whatever. We simply made endeavor in a most friendly manner to urge you to take the stand that most reputable manufacturers and jobbers had taken and more have since in respect to this practice, believing then, as we do now, that you would make more friends and secure more business than by antagonizing the legitimate dealer.

If you believe it is to your interest to do other, it is up to you.

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

Dictated but not re-read.

O. E. M. KELLER, President

D. W. WILLIAMS, Treasurer

A. G. RUTHERFORD, Secretary

ARCADY FARMS-MILLING COMPANY

Mill at Rondout, Illinois,
on the C., M. & St. P. and
E. J. & E. Railways.

RONDOUT, ILLINOIS, *Sept. 24, 1915.*

The N. Y. State Retail Feed Dealers' Assn., Waterville, N. Y.:

Attention — Mr. H. M. King, Sec'y.

Dear Sirs.—This will acknowledge your kind favor of the 21st, and we assure you that your letter is received with interest and appreciation and that its contents will receive immediate investigation.

The car of feed you call our attention to was sold by us to Allen & Stoddard at Groton, N. Y., to be shipped to Preble, just as we have sold them a number of other cars for Groton and several other points, with the understanding that they were and are legitimate dealers.

We realize as well as anyone the propriety of protecting retail feed dealers and have made it a part of our business policy.

Within the last twelve months we have established about eight hundred agencies with retail feed dealers and at all points are protecting feed dealers in our sales to consumers, farmers, etc.

In the same mail with your letter, we received a letter from Becker & Co., at Central Bridge, N. Y., copy of which we are attaching herewith showing that we protected him and that it is our policy to do so.

We trust that you will assure your members that such is our policy and that this particular case is being investigated and will either be taken up further with you in case we feel that there is some justice to the other side or else we will refrain from making further sales to these people.

We want to assure you of our earnestness and desire to co-operate with you and ask that you and your members feel perfectly free at any time to write us on this or any other subjects of such mutual interest.

We are having our New York representative investigate this, at once, and will be pleased to write you further at a little later date.

Very truly yours,

OK.HW

O. K.

Encl.

President.

(Copy)

BECKER & CO.

CENTRAL BRIDGE, N. Y., Sept. 20, 1915.

ARCADY FARMS & MILLING Co., *Rondout, Ill.*:

Gentlemen.—Yours of the 13th at hand.

We note you have protected our commission of \$1.00 per ton on the car feed sold W. H. Sidney, same to be paid when he takes up the draft. This is in line with the conversation we had with your Mr. Lee.

We thank you in the fair way you have treated us in the matter and hope to help you place some more in the future.

Very truly yours,

BECKER & Co.,

By W. D. B.

WATERVILLE, N. Y., September 21, 1915.

ARCADY FARM MILLING Co., *Roundout, Ill.*:

Gentlemen.—I am informed by a member of the New York State Retail Feed Dealers' Association that a car of Arcady Dairy Feed was shipped by you and unloaded at Preble, New York, through a direct-selling agency, the car having arrived at Preble, August 26th. As secretary of the New York State Association, I have been requested by this member, who is a legitimate dealer at that point, to take the matter up with you, as no doubt your action was due to oversight as to the effect on the legitimate dealer at the above named point.

We note that you are a member of the American Feed Manufacturers' Association. The New York State Retail Feed Dealers' Association is also a member and I believe the American Feed Manufacturers' Association favors the distribution of feed through legitimate dealers whom they recognize as the legitimate channel of distribution. We are co-operating with the American Feed Manufacturers' Association in every way and when cases of direct selling arise, which we regard as matters of serious injury to the legitimate dealer, we naturally desire to call the attention of the manufacturer, wholesaler or jobber, in a friendly way, to the injustice of it, with the hope that they will consider its effect both on the regular dealer and the very pleasant relations existing between the dealer and manufacturer which it is desirable to stimulate in every way possible.

The legitimate dealer in this State is obliged to keep up an establishment to do business; he is a large tax payer and occupies an important space in the interests of a community; he is a man who extends untold courtesies and is an economic necessity, while these direct selling agencies are, as a rule, something of light calibre originated in most cases for the purpose of pulling the farmer's leg, by someone the farmer does not know, and eventually stinging him good and proper. These movements do not last long, but they do injury while they are operating.

We sincerely trust that you will receive this letter in the same friendly spirit as it is written and that you will give the matter earnest consideration.

Hoping to hear from you at an early date, I beg to remain

Yours respectfully,

(Signed) H. M. KING,
Secretary.

WATERVILLE, N. Y., November 13, 1915.

Mr. FRANK F. MILLER, *Preble, N. Y.*:

Dear Sir.—Yours of November 6th received with interest. Have sent copy of same to our Executive Committee, also to Mr. H. R. Wilber, secretary of the Mutual Millers and Feed Dealers' Association.

A meeting of the Executive Committee, together with representatives of all local or county associations in the State, is to be held in Syracuse, Thursday, November 18th.

We are going to place all correspondence and facts in our possession in regard to those who have been selling direct before this meeting so that a more wide-spread understanding among the dealers will result as to those who are not using us just exactly along proper lines.

The Arcady people called me on the 'phone from Utica a few days ago and advised me the action they had taken along the line of cutting out the Allen & Stoddard deal, also making good to the dealers who had been affected by their sales in your section. Also had information from a Cortland dealer recently that this firm is having difficulty in getting stuff from those who have been selling them.

Have a letter from Hunter-Robinson-Wenz stating that they are investigating the matter of sales to granges, co-operative companies and such concerns as Allen & Stoddard and that they do not care to sell to only legitimate dealers and jobbers.

Will write Brisbin again and your letter furnished a lot of good ammunition to use in this direction. I think that our organization would not hesitate to oust him from membership unless he takes an entirely different stand.

Of course, we are very much pleased with our efforts of bringing relief in many cases and it surely looks as if the organization was accomplishing what we have always claimed for it. We are gradually getting new members, but want more; in fact, every dealer ought to get in line with us. In this manner we will be in position to back up our demands right smart.

Thanking you very much for the information and hoping you will not fail to keep us posted in regard to anything that comes up that we should know, I beg to remain

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

Dictated by Mr. King but not re-read.

CORN PRODUCTS REFINING COMPANY

Whitehall Building
17 BATTERY PLACE

NEW YORK, November 30th, 1915.

Mr. H. M. KING, *Secretary, The N. Y. State Retail Feed Dealers' Association, Waterville, N. Y.:*

My Dear Mr. King.—Replying to yours of the 27th, I am very glad to have you call our attention to anything that you consider an irregularity in the scheme of carrying on the feed business. As I stated at Jamestown, we always do business with the retail dealer wherever he will handle our goods and will distribute them for us, or someone of that nature in the section to make that distribution.

Mr. Perry, of Washington Mills, who made this complaint, used to buy considerable Buffalo Corn Gluten Feed. In 1913 we sold him five cars; in 1914 we sold him nothing; in 1915, one car. He has been handling competitors' gluten feeds in place of ours, although Mr. Dean has made every effort to secure his business. I am not giving you this information in extenuation of the sale of the Co-operative Company, but the thought perhaps will throw a new light on the situation for you. The Globe Elevator Company bought this feed outright and we have no right under the law to dictate to whom they should sell it. They were taking their own chances on the market and the price they paid for it was the same as that quoted to the retail dealer at the time.

It is my purpose to write the Globe Elevator Company calling their attention to this situation and asking them if they can do anything to rectify it. The Clayton Act does not permit us to dictate any terms of resale to anyone to whom to sell our feed.

I want to do all I can to encourage the co-operation and free interchange of views between your association and the individual manufacturer. We can do a good deal for one another in our several capacities, and I hope you will continue to let me hear of anything of this nature that comes up, and, in turn, I will take pleasure in calling attention to anything in which you can help us.

Yours very truly,

R. P. WALDEN,
Manager.

RPW ERC

WATERVILLE, N. Y., November 27, 1915.

CORN PRODUCTS REFINING CO., *New York City, N. Y.:*

Attention Mr. R. P. Walden.

My Dear Mr. Walden.—I hardly know how to start this letter, but as I know you personally, I am going to be very frank and say that the very first complaint in regard to Buffalo Gluten having been shipped direct to the consumer, has come to our attention this morning.

I am informed by a member of our association, a dealer at Washington Mills, N. Y., that a car of Buffalo Gluten in sacks has been shipped to the Farmers' Co-operative Co., of Oneida county, and delivered from the car to

farmers direct at \$27.00 per ton. The number of the car is 500381; initial, P. R. R. I understand that the Globe Elevator Co., of Buffalo, are the people who sold the car to this co-operative company.

Now, we have always felt that the Corn Products Refining Co. were in entire sympathy with the principles of our State Association and we know very well, indeed, that nothing of this kind would ever happen if you were aware of it.

The greatest trouble, as I have said time and again, is not with the manufacturers, but with certain jobbers who persist in selling direct to the injury of the legitimate dealer and I am sure that in taking this matter up with you and advising you of the facts in the case, that you will take the matter up with the Globe Elevator Co., in such a way that there will be no repetition on their part of such sales to these co-operative or direct-buying agencies. Practically every gluten manufacturer has taken this stand and have advised their jobbers that they must make no more sales direct or to agencies which mean the same thing.

Awfully sorry to have to call your attention to this matter, but I feel perfectly free in doing it and know that you will be glad that I have done so.

With very kind regards, I beg to remain

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

(Copy)

FARM BUREAUS
OF
NEW YORK STATE

U. S. Department of Agriculture
State College of Agriculture
State Department of Agriculture
County Farm Bureau Associations
Co-operating

New York State
College of Agriculture
Cornell University
Ithaca, N. Y.

March 27, 1916.

Mr. H. M. KING, *Secretary, N. Y. State Retail Feed Dealers' Association, Waterville, N. Y.:*

Dear Mr. King.—Replying to your letter of March 20th, you are at liberty to send copies of our circular letter No. 3 on co-operative buying and selling to any and all persons which you may desire and to the press, if you wish. Of course, the gist of this is that we propose to encourage and assist in the developing of co-operative buying and selling organizations where we believe these can serve the interests of the farmers better than other agencies. On the other hand, if we believe that existing agencies serve the interests of farmers better than any co-operative organization would, we shall advocate the use of these. The Farm Bureaus stand primarily for the best interests of the farming population. This is in the best interests of the general public also, because of the intimate relation between the consumer and the producer of agricultural products. The only place where we draw the line is in our

Farm Bureau managers actually handling funds, soliciting orders, and sending in orders to companies. We do this for two reasons; first, because we believe farmers should do these things for themselves, and second, to avoid the charge which is sure to come up whether there is any basis for it or not, that the Farm Bureau men are getting a "rake off" on the deal.

I resent the insinuations that you say are being made as to the activities of Farm Bureau managers, which do not comply with the State policies. Why do men make these insinuations if they have not the facts, and if they have the facts why do they not submit them to us? You have submitted one rather weak case in your letter of some weeks ago. I am investigating this matter and as soon as I get the facts together, I shall give them to you and if necessary, to the press of the State. It is very unfair to be spreading rumors that are not based upon the facts in the case and I have yet to find a violation of our general policy.

Very truly yours,

(Signed) M. C. BURRITT,
Director of Farm Bureaus.

THE MUTUAL MILLERS AND FEED DEALERS' ASSOCIATION

OFFICIALS

WALTER MERRICK, President,
Corry, Pa.
EDWIN A. BAGG, Vice-President,
Conewango Valley, N. Y.
H. R. WILBER, Secretary,
Jamestown, N. Y.
ROY MULKIE, Ass't Secretary,
Union City, Pa.
HENRY NEFF, Treasurer,
Salamanca, N. Y.

EXECUTIVE COMMITTEE

A. E. DYE, Forestville, N. Y.
A. B. ARCHER, Conewango, N. Y.
A. HERSPERGER, Mayville, N. Y.

OFFICE OF THE SECRETARY, H. R. WILBER,
600 Chadakoin Building

JAMESTOWN, N. Y., May 12, 1916.

Mr. H. M. KING, *Secretary, Waterville, N. Y.:*

My Dear Mr. King.—Have yours of the 11th and have noted same very carefully, as well as copy of the letter from Mr. Burritt.

Now, not time to write much to-day, but will write Mr. Merrick at Corey and send along your letter, and believe I can and should get out a circular letter, copying the larger part of your letter and by adding something to it put it before all of our members and see if we cannot get some of them started for Albany.

Looks as though Burritt was ready to take the bull by the horns, and wondering just what he means when he says: "We are totally out of sympathy with some of the methods pursued by some men, and we believe that the situation in some sections is intolerable and must and will be changed."

By the way, our Mr. Kessler picked up a tag yesterday from a car of feed which was shipped into Cherry Creek. He was unable at this time to find out who shipped the car, or who made it. Guess it is rather evident who sold it. Will try and get more information on this later.

Yours very truly,

WILBER,
Secretary.

HRW-S

OFFICE OF SECRETARY RETAIL FEED DEALERS' ASSOCIATION
BULLVILLE, NEW YORK

OFFICERS

President, THOMAS FULTON, Washingtonville, N. Y.

Vice-President, SEYMOUR H. LAWRENCE, Sussex, N. J.

Secretary, FRANK C. JONES, Bullville, N. Y.

Treasurer, H. A. HORTON, Johnson, N. Y.

BULLVILLE, N. Y., May 5, 1916.

Mr. H. M. KING, Waterville, N. Y.:

Dear Sir.—At a meeting of the Orange-Sussex Association yesterday, the turn of affairs taken in the Farm Bureau matter, especially as regards the position taken by the U. S. Department of Agriculture, met with considerable discussion. I am authorized and, in fact, directed to take the matter up with you and Mr. Carrier with a view of getting, if possible, an appointment with Commissioner Wilson at Albany and possibly Director Burritt at the same time, for the purpose of discussing the position taken by Mr. Burritt with reference to the part taken by county managers in Co-operative Associations.

If the result of a conference with these men is not entirely in accord with our views and the position they are now taking is adhered to by them, I am directed to prepare a statement on the situation and to present the same personally at the American Feed Manufacturers' Association at their annual meeting in Peoria next month for the purpose of enlisting their active support in every way toward the elimination of the objective features such as are stated in the last paragraph of Secretary Houston's letter to you.

I am of the opinion that the spirit of antagonism shown by Burritt is going to stand in the way of any satisfactory solution of differences very soon, but our people consider the situation too serious to stand still and submit to the roller passing over them without doing something to head it off.

A copy of this letter is going to Mr. Carrier and, if you consider the plan as outlined worthy of carrying out, you may make the appointment with these men and I will meet with you at any time or place. Please let me have your views promptly as the time is rather short.

Yours very truly,

F. C. JONES,
Secretary.

WATERVILLE, N. Y., January 29, 1916.

C. J. LOWN, *Secretary, Dutchess Co. Retail Feed Dealers' Association, Rhinebeck, N. Y.:*

Dear Sir.—I beg to acknowledge yours of the 28th, with copy of resolution adopted by the Association; this is all right. I have sent copy of it to a number of our officers and would say that this very matter, insofar as feeds are concerned, was brought up at the last meeting of the State Association in Utica and was discussed with members of the Executive Committee of the American Feed Manufacturers' Association who thought that there might be some action taken by that Association relative to the matter. I do not know that they have taken such action as yet, but I do know that some manufacturers took an individual stand in the matter; for instance, the American Milling Company, who sent out to dealers a certificate agreeing to protect them in any prosecution arising from the failure of their feeds to comply with the laws of the State.

I am enclosing for your information also copy of letter from Mr. Dean of Delhi relative to the Farm Bureau appropriation in Delaware County. This may be of interest to you, as I know you took some action a year ago in regard to the very same matter in your county and I, myself, personally went before the Board of Supervisors in this county and fought the appropriation, but it was finally adopted with the distinct understanding that there should be no connection between the Farm Bureau and the Co-operative Company. This is surely something that every county should look after and so long as they keep their hands off the dealer, as Mr. Dean suggests, we have no objection to the Farm Bureaus, although I believe that a whole lot of their work is unpracticable and an unnecessary expenditure of money, as the same information may be secured and is given from three or four different sources already.

I am advised that the meeting of the Mutual Millers at Buffalo yesterday was a very enthusiastic and successful one and that a number of manufacturers were present from the West, which shows that we certainly have engaged their attention quite largely since our association became so active.

With very kind regards, beg to remain,

Respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., June 13th, 1916.

Mr. GEORGE UTLEY, *Secretary, Pulaski, N. Y.:*

Dear Mr. Utley.—I hope you are planning to attend the Convention at Albany together with as many as possible from your Association.

A number of the fellows are going down to be there Tuesday evening, the 20th, and get together and organize—we would like to have you join us.

If you have any information in regard to the activities of your Farm Bureau Agent bring it along.

I think you understand that we have no quarrel with the Farm Bureau and will support it willingly—but we want them to leave the Feed and Seed business alone.

I think we will have some facts in respect to their activities in different sections of the State which do not bear out with the functions of Farm Bureau Agents as set forth by the different Controlling Agencies.

We sincerely hope to see you at Albany and believe the prospects are fair for a pretty good and enjoyable time.

Let me know if the fellows are planning to come.

Yours sincerely,

H. M. KING.

WATERVILLE, N. Y., June 3, 1916.

Mr. ROBERT NICHOLL, *Roxbury, N. Y.*:

Dear Sir.—I duly received your letter of the 16th and have been following this matter up through other channels since.

I am in receipt of a letter from Mr. Schell, also received a call from him last evening, and he advises that you will come to Albany for the Convention and I am writing this to urge you to do so and to endeavor to arrive there the afternoon or evening of the day previous to the Convention; that is the 20th, as a number of the more active members of the Association propose to get there and hold a sort of "get-together" meeting the evening before and go over some of these matters so as to organize for the purpose of discussion the next day. Mr. Schell suggests that it might be possible for you to get Mr. Wyckoff to accompany you and we would be very glad to have him do so if he is willing.

Our main idea in getting the men which we have secured to speak at this convention is to have representatives of all the agencies backing up the Farm Bureau proposition, also to secure the very largest attendance we have ever had at a meeting of dealers so that we may show these people that we are averse to any interference with the retail dealer's business by the Farm Bureau; otherwise we are perfectly willing to support it.

Trusting we may have the pleasure of meeting you at Albany, I beg to remain,

Very respectfully yours,

(Signed) H. M. KING,

Secretary.

HMK/D

May 12, 1916.

Messrs. J. E. ROANTREE & Co., *Canastota, N. Y.*:

Gentlemen.—The Annual Convention of the New York State Retail Feed Dealers' Association will be held at "The Hampton," Albany, N. Y., June 21st, 22d and 23d.

You are of course aware of the activities of the Farm Bureau and the discussion that has taken place of late in regard to the position of this institution respecting the functions of Farm Bureau Managers in the various counties of the State as applying towards influencing consumers to buy at wholesale.

At a recent conference of Manufacturers, Jobbers and Retail Feed Dealers called under the auspices of this association, resolutions were adopted in opposition to the activities of Farm Bureau Agents along these lines and the same were forwarded to the various agencies having control over the

Farm Bureau, i. e., the Department of Agriculture at Washington, the Department of Agriculture of New York State and the Chairmen of the various Boards of Supervisors of counties of the State appropriating money for the support of Farm Bureaus (some 36 in number).

The correspondence and discussion which has resulted is of very great importance to the feed dealer and his business is such that he should bestir himself and get behind the movement which this association has engaged itself in to checkmate if possible the growing tendency of the Agricultural Department of not only the Federal Government, but of this State, to encourage co-operative buying of farm commodities at wholesale, or the elimination of the retail dealer.

This association is arranging a program which will include a representative of the Department at Washington, the Commissioner of Agriculture of this State, Director of Farm Bureaus, M. C. Burritt, and others who will address the convention along the lines of the subject above mentioned.

Thus it will be seen that we shall have a clearer expression from the men who have control over the Farm Bureau proposition of their position and to what extent it may be the purpose of the various departments to go in using the Farm Bureau to curtail or interfere with legitimate business.

As an indication of the kind of talk we may expect to hear, I am enclosing a copy of letter received today from M. C. Burritt, Director of Farm Bureaus of this State, accepting your invitation to address the convention. Please treat this confidential.

We feel that this meeting will be of such vital importance that every dealer in the State should put aside other matters and attend the convention and thus express our united opposition to the present influence of the Farm Bureau, for there sure will be some live discussion.

We want to serve notice that some 2,000 to 3,000 dealers of the State do not propose to stand for a proposition that we are helping to support which seems to have a purpose to undermine our business.

Now my purpose in writing you this and giving you these advices is, that the Executive Committee believe it most essential that the local associations get busy and begin a campaign immediately to secure the largest attendance possible at the Albany convention of this association. It would seem that every dealer ought to feel it a duty to help to make the attendance so large that these men who will speak cannot fail to recognize that we resent this Federalized or State Bureau and that we intend to fight it.

The Governor of the State has also been invited to attend and address the convention.

Program and notices of the convention will be mailed later.

Trusting you will take the matter up at once in your association and awaiting your reply that you will do so, I beg to remain,

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

CLOVER LEAF MILLING CO.

Millers and Manufacturers of
CLOVER LEAF FEEDS.

D. B. FRASER, President.

W. H. KEENEY, Secretary and Treasurer.

F. C. GREUTKER, Sales Manager.

Mills and Office
Ontario St. and Cloverdale Road,
Buffalo, N. Y.

321 BRANDYWINE AVE., SCHENECTADY, N. Y., April 27, 1916.

Mr. H. M. KING, *Secretary, N. Y. State Retail Feed Dealers' Association,*
Waterville, N. Y.:

My Dear King.—I have yours of the 26th and note copies of letters from M. C. Burritt, B. S. Mead and A. J. Nicholl. You will note that they substantially confirm my statement made before the dealers' meeting at Binghamton. You will remember that my statement was partly from what was told me by Robert Nicholl, the dealer there, and partly my conversation with the Farm Bureau agent whom I believe was T. M. Avery. I cannot vouch for what Mr. Nicholls told me, but will vouch for the correctness in what Mr. Avery said to me. I think I remember that this matter aroused such indignation in Delaware county that Mr. Avery, when his year expired and the matter of employing him again was brought before the Board of Supervisors, was asked to appear at the Board meeting, and a resolution was passed instructing him to keep his hands off of purchasing feed, and he was told that he would be dropped unless he did so.

If you will write Crawford Bros., Hamden, N. Y., I believe they can give you full information as to what the Board of Supervisors actually did and said, as I remember their telling me about it, and I also suggest that you write Robert Nicholls, Roxbury, and get his statement of what occurred when Mr. Avery and Mr. Nicholl called at his office. It looks to me as if this man Burritt was begging the point when he claims that these people never saw the feed or handled the money, because my statement at Binghamton was not to that effect.

It looks to me as if all this will do a lot of good as showing Mr. Burritt that the feed dealers of New York State do not propose to have these matters go on without a very vigorous protest.

I am not in a position at present to get any more information myself than I have given you, or showed you where to get it.

With kindest personal regards, I beg to remain,

Yours very truly,

L. S. SCHELL.

WATERVILLE, N. Y., March 13, 1916.

M. J. MUDGE, *Treasurer, Afton, N. Y.*:

Dear Mr. Mudge.—Yours of the 9th with enclosure received and noted. I have seen this man over at Morrisville Agricultural School.

We received inquiry from M. C. Burritt, Director of Farm Bureaus of the State, stating he had been informed that at our recent meeting statements were made that County Farm Bureau Agents had sold feed, etc., on commission and asking if the facts could be substantiated, also requesting copy of resolutions which he said he had heard were adopted at this meeting.

Have written him giving him the statement made by Mr. Schell at Binghamton in relation to the matter. Mr. Schell said he had no objection whatever to our giving same to him.

I hope you won't have much trouble with direct selling for it is an awful nuisance. The only thing we can do is to keep banging away at those who do it and we certainly have some good friends.

Look out for the J. E. Bartlett Co., Jackson, Mich. If you handle Bull's Eye Mixed Feed made by Blish Milling Co., you may say they are selling to co-operative companies. Wagar and Barringer of Philadelphia are good.

Am enclosing copy of the resolutions adopted at the Binghamton meeting.

Yours sincerely,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., November 29, 1915.

Mr. CHAS. YOUNG, *Mohawk, N. Y.*:

Dear Sir.—Am enclosing copy of letter received from Kemper Mill & Elevator Co., in relation to car you reported which went to Jordanville.

Now this is rather of an evasive reply to my letter and I am going after them again today.

In the meantime is there any way you could learn of the name of the "other concern" which is of course some jobber?

I have a notion it is some of those Buffalo fellows, but of course may be wrong. If it is, would like to put it up to the Kemper people good and proper as we have some of them on the run, especially Traders & Producers and Nowak; and there is another concern there, too, Globe Elevator, who are up to the same kind of business. We are after them now.

Look out for Listman, La Crosse, Wis., and Bartlett Co. of Jackson, Mich., also H. O. Company, Buffalo.

If there is any chance of ferreting out the jobber through whom Kemper placed the car at Jordanville, it will be a great help.

Yours,

H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., April 26, 1916.

Messrs. C. W. WAGAR & Co., 534-540 Bourse Building, Philadelphia, Pa.:

Gentlemen.—I beg to acknowledge receipt of your kind favor of the 24th and am very much interested in the attached copy of your letter to Mr. Keegan, also his reply. The matter has resulted just about as I expected it would and as I insinuated in my previous letter. I am sending the same on to Mr. Carrier tonight for his information.

I wish to say further that I attended a meeting of the Herkimer County Association yesterday and, believe me, I gave vent to my opinion along the lines that you have often suggested, that dealers should let those jobbers alone who sell direct in one place and to the dealer in another and I advocated very strongly standing by the jobbers who were in sympathy with us.

I also took occasion to particularly mention your name and your attitude and read the recent letter you wrote me in regard to the Liberty matter so that you may appreciate that I, as before stated, am continually trying to work for your interest, as well as other straight jobbers.

Trusting this will meet with your approval, I beg to remain,

Very respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

P. S.—Please add to the list of members of this association the following names: P. W. Floyd, Crown Point Centre, N. Y.; E. T. & J. G. Wilcox, Harford, N. Y.; R. N. Dersheimer, Dryden, N. Y., and J. W. Best, Herkimer, N. Y.

WATERVILLE, N. Y., March 20, 1916.

Mr. JOS. BAUMERT, Antwerp, N. Y.:

Dear Sir—Mr George Southwell 'phoned me this morning to mail you application blanks as you wished to join the State Association.

I am very glad to enclose same herein and assure you your interest in our work and desire to help along by becoming a member of the association is appreciated.

We are helping the boys out in all parts of the State and have, as you are probably aware, succeeded in eliminating a very substantial amount of direct selling.

Manufacturers and jobbers are investigating very carefully now as to the status of those requesting quotations and endeavoring to buy direct.

You would be surprised to see the correspondence that comes to this office from firms who have been solicited to sell direct. This surely represents a very different situation from that of a year or even six months ago when practically anyone who could pay a draft could buy a car of feed or grain.

I think the dealers in the northern part of the State can testify as to results obtained through the medium of this association.

As are keeping dealers and local associations posted continually so that it is pretty hard for any concern to get by with direct sales without being reported to dealers all over the State.

If we can be of service to you, command us.

Awaiting your reply, I beg to remain,

Respectfully,
(Signed) H. M. KING,
Secretary.

HMK/D

THE CORTLAND HOUSE

N. A. SMITH Co., Props.

Carlton Hotel,
Binghamton,
on Saturday Morning.

CORTLAND, N. Y., *October 27, 1915.*Mr. H. M. KING, *Waterville:*

Dear Sir.—In enclose you a circular letter of W. A. Holman & Sons of Ithaca, which speaks for itself.

I spent nine hours today talking N. Y. State Feed Dealers' Association, and the cash basis, and have won over the following firms:

W. A. Holman & Sons, Ithaca,
H. L. Fish, South Cauga St., Ithaca,
J. B. Thayer, 32 West State St., Ithaca.

These three firms are anxious to go on the cash basis and Holman has decided, as per letter. Thayer wants to do it, and will now go ahead, but he was not aware of the workings of the State organization and the manufacturers, so I had to explain and also talk "Cash Basis." I am certain that if you take up the matter of their joining the State Association they will do so, as they are having trouble with Chapin & Co. supplying direct and were not aware of your work in helping them.

Get after them. I have told them you would do so.

Also Thayer would like some more information on the cash problem, as they have a firm holding-out named:

Mandeville Bros. of S. Cayuga St.

Mr. Holman will write you, I expect, but I told them I would advise you myself.

Yours truly,

ERNEST A. WEBB.

WATERVILLE, N. Y., *October 28, 1915.*

Mr. H. L. FISH, *Ithaca, N. Y.:*

Dear Sir.—I am in receipt of a letter from Mr. E. A. Webb, representing Edwards & Loomis, of Chicago, stating he had been in conversation with you regarding a prospect of the dealers in Ithaca adopting the cash system of trade and stating that one dealer there is to put the system into operation November 1st.

I congratulate that dealer for taking the step and you also if you have the same under consideration. All it requires is a little nerve and backbone.

You may not be aware of the fact that the Cash System is being adopted by dealers all over the State.

There are some fifteen counties or more in the State now that have local county associations and the majority of them have adopted this system, while in every part of the State elsewhere there are many dealers who are individually following the same lines and others following.

Now, the State Association is in touch with all these local associations; in fact, tries to keep in touch with all the dealers and we have a very large mailing list, but I find that we have overlooked you in some way as your firm

has not been on the list, which I very much regret. I wish you would give me the names of all dealers in Ithaca so that hereafter we will have it correct.

Now, I supposed that all dealers knew of this organization and its purposes, for we are trying to be a live wire organization for the benefit of the feed dealer and one of the things we are devoting our activities to at the present time and for some time past, is the elimination of direct selling, and let me say we are fighting it hard.

We have a strong ally in the American Feed Manufacturers' Association and I presume Mr. Webb gave you some information as to the close co-operation between this and our own State organization.

We believe that we can eliminate the evil of direct selling, but we want and must have the support of the dealers, for I think you will admit that to impress some manufacturers and jobbers who yet cannot withstand the temptation to sell a consumer under the legitimate dealer's head, we must have the unqualified support of every individual dealer.

At our last convention the resolution hereto attached was adopted and in co-operation with all local associations in the State, we are going after those concerns who are indulging in direct selling to the consumer whenever a case is reported to us and we are accomplishing splendid results.

It has taken a long time to get the dealers awakened to the need of this association and to the fact that we were really doing something. This has all been proven and now it ought to appear to any dealer that it is worth while to put his shoulder to the wheel and help do more.

I am enclosing application blank and would be very glad to have you fill it out and return to me and at the same time if you have a case of direct selling in mind, don't hesitate to advise us and will be glad to take it up for you.

An association can do more than an individual in such instances.

Very respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

Storehouse near W. S. Depot.

POTTER & TRACY

COAL, LUMBER, FLOUR AND FEED,

LATH AND SHINGLES

FAYETTEVILLE, N. Y., November 23, 1915.

Mr. H. M. KING, Waterville, N. Y.:

Dear Sir.—We are going to adopt the cash pay idea in selling feed and Mr. W. M. Jones, of this place, tells us you have conducted a cash feed business for a time, and perhaps could give us some pointers regarding the system you used. Any information given will be thankfully received and appreciated.

Awaiting your reply, we are,

Yours very truly,

POTTER & TRACY.

WATERVILLE, N. Y., November 24, 1915.

Messrs. POTTER & TRACY, Fayetteville, N. Y.:

Gentlemen:—Replying to yours of the 23d. Glad to know you are to adopt the Cash System. It is going all over the State about as fast as possible. At Auburn and Ithaca all the dealers adopted it the other day.

I enclose copy of letter we sent our trade, also one a dealer down in Groton used, which please return. These will give you an idea of the way it is announced. About all letters cover practically the same ground.

We simply require cash for everything in the feed and grain line at the mill, except public institutions and Corporations and absentee landlords, which we give a limited time to audit bills and send check.

Everyone understands it now and we don't have to explain. If someone happens to come without their pocket-book, why we let them have the stuff, but understood that they must bring the money next time down. They don't forget now and really don't have any trouble about it. Got to use a little judgment, that's all.

Don't know of anyone going back to the old system after once adopting cash.

Some say it can't be done in a town where all the dealers do not come in. It can, if a dealer has a little nerve, but that's up to him. Know of lots of cases where after one has adopted cash, they all come in later, as the first fellow is getting the cash trade and they the credit. *Usually drop the prices about a dollar a ton, but guess most get back to the former margin of profit after a while.*

If anyone comes in and sells direct, let us know and we will go after them. We are having splendid success in cutting it out.

Had a letter from a dealer last night, saying he could not see that he had lost any business by cash system; on the other hand, had plenty of money.

One dealer at Herkimer has collected in \$19,000 and invested it and has plenty now besides to run his business.

This is about the run of reports. Therefore, I do not see why it is not good business to adopt Cash System.

Yours respectfully,

(Signed) H. M. KING,

Secretary.

HMK/D

WATERVILLE, N. Y., July 21, 1915.

Mr. GEO. S. UTLEY, Pulaski, N. Y.:

Dear Sir.—Please accept my thanks for yours of the 15th, also my congratulations over the arrival of the 10¼-pound boy at your house. I can imagine just how proud you were the morning of his arrival, for I have experienced that same feeling on two occasions.

I am very glad to know that so many of the members have concluded to adopt the cash system and no doubt all will come to the same conclusion in a matter of time.

We had a very enjoyable time at Jamestown and their convention was a great success. The manufacturers from the West, who were in Utica, all came on with some others. There is a movement on foot now to hold the

annual convention of the American Feed Manufacturers' Association, the New York State Association and the Mutual Millers and Feed Dealers' Association at Buffalo next year all at the same time. It sure looks as if we had the co-operation of the manufacturers and things are going to come our way I believe.

With very kind regards, I beg to remain,

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

Wm. Darlin.

H. J. Wood.

DARLIN & WOOD

Wholesale and Retail,

Flour, Feed, Meal, Grain, Hay and Coal.

Custom Grinding a Specialty.

BAINBRIDGE, N. Y., *November 8th, 1915.*

Mr. H. M. KING, *Waterville, N. Y.:*

Dear Sir.—We have a case of direct selling which we would like to refer to you and thought perhaps you might be able to help us out.

The name of the firm from which they are buying is Powell & Co., 443-445 The Bourse, Philadelphia, Pa. The farmers are buying under the name of John Wildi Evaporated Milk Co.

The bill of lading is at the bank, but the car has not arrived yet and if there could be some way of getting next to the firm mentioned and cancel, if possible, if not have the car diverted so that the farmers will not get the habit.

We are also writing the firm to see if they will divert the car to us.

Thanking you in advance for whatever you may be able to do for us.

Yours very truly,

DARLIN & WOOD.

WATERVILLE, N. Y., *November 8th, 1915.*

DARLIN & WOOD, *Bainbridge, N. Y.:*

Gentlemen.—Your special delivery letter only received by me tonight on my return from a funeral at Oneida.

Now I hasten to ask if you cannot find from the bill of lading of the car that Powell & Co. have sold there who the actual shipper is and the stuff in the car.

Powell & Co. are jobbers in Philadelphia and we know their reputation and the way to get at them is through the shipper or manufacturer of the goods.

We had a case where they had sold Douglass Gluten to a co-operative company and we went after Douglass & Co. and they notified Powell & Co. that they would not stand for it and that they must cut it out on their goods or they would take their account away from them. We have copy of the letter here now that Douglass wrote them.

We haven't much use for Powell & Co., but we can and have been getting results from manufacturers that are splendid and I only wish you could see some of the mass of correspondence that has passed since the Utica meeting.

I will write Powell & Co., however, but we expect, as above mentioned, to get more satisfaction from the manufacturer who furnished the car. Will also place the matter in H. R. Wilburs, Secretary of the Mutual Millers and Feed Dealers' Association, as we are working very closely on all these matters, keeping in touch by letter and copies of correspondence practically every day.

I wish the dealers all over the State could realize the work that is being done by this association—seems as if every mother's son of them would be glad to become members and help it along.

We are figuring now to call a meeting of our Executive Committee very soon with one or two officers of every local association in the State and there are now some eighteen counties organized, so as to lay before them all the correspondence with different concerns as to direct selling. This, you see, will have a widespread bearing and I can assure you some of them are very anxious not to incur the ill will of the dealers.

Am writing this myself tonight as the young lady is not here evenings and want to get this off first mail in morning to you.

Please excuse errors and believe me ready to do everything possible to help the dealers. Have always believed in this association and do now more than ever.

Awaiting your reply, I am,

Respectfully,

(Signed) H. M. KING.

WATERVILLE, N. Y., November 12, 1915.

Messrs. DARLIN & WOOD, *Bainbridge, N. Y.*:

Gentlemen.—I am enclosing herewith copy of letter received from Powell & Co. this morning.

Our taking these matters up immediately certainly has a good effect and I shall write Powell & Co. further in regard to the matter.

We are sending out notices today for the meeting of the Executive Committee at Syracuse, Thursday, November 18th, at the Yates Hotel at 10 o'clock to continue throughout the day and if you find it convenient to be present would suggest that you do so, as we would like a very large representation of dealers so that all can keep posted on what is doing.

Very respectfully,

(Signed) H. M. KING,

Secretary.

HMK/D

Dictated but not re-read.

WATERVILLE, N. Y., November 9, 1915.

POWELL & Co., 443-445 *The Bourse*, Philadelphia, Pa.:

Gentlemen.—This office is in receipt of information from one of the members of this association, a legitimate retail dealer at Bainbridge, N. Y., that you have sold a carload of feed direct to farmers at that point, the car now being in transit.

I beg to advise that this Association is endeavoring to use its good offices to bring pressure to bear upon the manufacturer and jobber to eliminate the practice of direct selling.

We are taking this matter up with you in a perfectly frank and friendly manner, desiring to call to your attention the fact that the dealers of New York State are very strongly organized and are bitter in their opposition to this direct selling evil, which I think you must yourselves admit is an injustice to the legitimate dealer who is obliged to maintain an establishment to do business and supply the needs of his community.

I am advised that if you see fit to divert the car in question before its arrival for the farmers, that the firm of Darlin & Wood, of Bainbridge, N. Y., would be willing to take the car in and pay for it.

By taking the matter up with this firm direct I think you will have no trouble whatever in placing the car through the proper channel and which I can assure you will meet with the approval of a large body of dealers in New York State.

I would also like to have the pleasure of a reply stating your policy as to direct selling and if it is your purpose to continue along these lines or protect the legitimate dealer.

Yours very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

POWELL & COMPANY

Shippers of Mill Feeds and Grains

443 and 445 Bourse Building

PHILADELPHIA, PA., November 11, 1915.

Mr. H. M. KING, *Secretary, N. Y. State Retail Feed Dealers' Association, Waterville, New York:*

Dear Sir.—We have your letter of the 9th, in reference to the car of feed that we sold to the John Wildi Evaporated Milk Co., at Bainbridge, N. Y. We also have a letter from Darlin & Wood in reference to this car, and we have written them that if they can make arrangements with the manager of the John Wildi Evaporated Milk Co. to take care of the car it will be satisfactory to us. We have a contract with them, however, and must fulfill it, otherwise we will be liable for damages.

We never have, and never intend to make a practice of selling to the farmers, but when we sold this car we did not understand the conditions as they exist up there. We understood that the John Wildi Evaporated Milk Co. was a concern something like the Hershey Chocolate Co. here in Penna. who have a regular incorporated feed department.

We are glad that you and Darlin & Wood have taken this matter up with us, and assure you that we do not intend to sell them in the future, now that we know they are not a regular incorporated feed concern. We do considerable business with some of your members and it would not pay us to take a chance of selling the farmer direct.

We would appreciate if you could throw some business our way, and hope that Darlin & Wood can make arrangements with the manager of the John Wildi Co. to take care of this car of feed, and we certainly are sorry that we sold same.

We trust you appreciate our position in the matter, and awaiting your reply, we remain

Very truly yours,

POWELL & COMPANY,
By C. ROBT. BEAN.

Wm. Darlin.

H. J. Wood.

DARLIN & WOOD

Wholesale and Retail

Flour, Feed, Meal, Grain, Hay and Coal

Custom Grinding a Specialty

BAINBRIDGE, N. Y. ,November 13th, 1915.

H. M. KING, Waterville, N. Y.:

Dear Sir.—Your letter received, we would hasten to reply that we have been corresponding with Powel & Co. concerning the matter and they tell us that they did not understand the situation here, and that they will ship no more to them.

The car that they shipped is Elmco Bran, have been trying to get the car diverted to us but cannot seem to get any satisfactory results. Powell & Co. are willing but have made the contract and claim that they will be obliged to fulfill it. Can you see any way?

Have been away or would have answered more promptly. Thanking you for your interest in the matter, we remain

Yours very truly,

D&W/MW

DARLIN & WOOD.

WATERVILLE, N. Y., November 16, 1915.

Messrs. DARLIN & WOOD, Bainbridge, N. Y.:

Gentlemen.—Replying to yours of the 13th inst. Don't see how you can prevent the car in question arriving and being delivered.

Hope, however, that Powell & Co. will live up to the sentiments expressed in their letter.

I would like to know if, as you say, this car contains Elmco bran, whether the Listman Milling Company have had an established trade in your town or vicinity on Elmco Bran or their other feeds and flour and if their goods are being sold there now.

We are having some correspondence with them and would like to be posted in such matters, as their secretary is quite an arbitrary person in regard to their position relative to direct selling.

Yours respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., November 19, 1915.

POWELL & Co., 443 Bourse Building, Philadelphia, Pa.:

Gentlemen.—Replying to yours of the 11th inst., I beg to thank you for the position you take in the matter at Bainbridge and the assurances that you will discontinue selling them in the future, also your position in not selling to farmers direct.

We also wish to call your attention to two other direct-selling propositions, the granges and co-operative companies, that the legitimate dealers in the State are opposed to, and as both these agencies amount to the same thing as selling farmers direct, would suggest that you let us have an expression as to your policy towards supplying them.

Of course, it was impossible for Darlin & Wood to make any kind of an arrangement to take over the car shipped there to the milk company.

Again thanking you and awaiting the favor of a reply, I am

Respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

POWELL & COMPANY

Shippers of Mill Feeds and Grain
443 and 445 Bourse Building

PHILADELPHIA, PA., November 27, 1915.

M. H. M. KING, Secretary, N. Y. State Retail Feed Dealers' Association,
Waterville, N. Y.:

Dear Sir.—We have your letter of the 19th. We did the best we could to enable Darlin & Wood to make arrangements to take over the car of feed shipped to the John Wildi Milk Co., at Bainbridge, but they insisted that we fill our contract.

In reference to the granges and co-operative companies which the legitimate dealers are opposed to, we will not sell them. We have been getting very little business from your members and would appreciate it if you would put our name before them and ask them to give us a share of their business, providing, of course, our prices are in line. Any inquiries which we may get from the milk company at Bainbridge we will refer to Darlin & Wood.

We have tried to act fair in this matter and think it would be no more than right that we get some business from your members. Please let us hear from you.

Very truly yours,

POWELL & COMPANY.

Wm. Darlin.

H. J. Wood.

DARLIN & WOOD

Wholesale and Retail

Flour, Feed, Meal, Grain, Hay and Coal

Custom Grinding a Specialty

BAINBRIDGE, N. Y., *December 29th*, 1915.H. M. KING, *Waterville, N. Y.*:

Dear Sir.—We are still having trouble with the farmers buying direct through Mr. H. H. Lyon, a farmer who we are unable to do anything with. He purchased a car of Elmco Bran and Middlings of the Listman Milling Co.

We are informing you in order that you may know what the Listman Milling Co. are doing here.

We are very anxious to know what the Association has been able to do in regard to putting a stop to this firm's selling direct, and would appreciate very much if you would keep us informed in the matter.

Thanking you in advance, we remain

Yours very truly,

D&W/MW

DARLIN & WOOD.

WATERVILLE, N. Y., *December 30*, 1915.Messrs. DARLIN & WOOD, *Bainbridge, N. Y.*:

Gentlemen.—I am in receipt of yours of the 29th, and note that the Listman Mill Co. have shipped a car of feed into your place to H. H. Lyon, a farmer.

You will probably recollect that we had some discussion of this Listman Mill Co. at the Syracuse meeting, and they have assumed a very arbitrary position in regard to direct selling; insist that where they have quoted and the dealer will not handle their goods or has handled them and stopped handling them, they feel at liberty to sell direct, but I will take the matter up with them and let you know later.

With very kind regards, I beg to remain

Very respectfully,

(Signed) H. M. KING,

Secretary.

HMK/D

WATERVILLE, N. Y., *February 29, 1916.*

Messrs. POWELL & Co., *Philadelphia, Pa.:*

Gentlemen.—I am informed reliably that you have sold and had shipped into Canton, St. Lawrence Co., N. Y., two cars of bulk Gluten Feed to an association of farmers in direct opposition to the legitimate dealers.

Inasmuch as you have indicated to us that it was your purpose to not in any way antagonize the legitimate dealer, I beg to inquire if you have changed your policy? If so, we shall regret your stand very much and I can assure you that the dealers in this State are watching very closely the movements of those who are selling direct to farmers and farmers' associations.

Awaiting your reply, I beg to remain

Respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., *March 8, 1916.*

POWELL & COMPANY, *The Bourse, Philadelphia, Pa.:*

Gentlemen.—Thanks for yours of the 6th inst.

Sorry to learn you are closing out your business.

I understand you are to be succeeded by H. U. Bean & Co.

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., *March 6, 1916.*

DOUGLASS Co., *Cedar Rapids, Iowa:*

Gentlemen.—I thank you for yours of the 2nd and 3rd inst. in regard to Powell & Co., also H. U. Bean & Co.

Permit me to say that your many courtesies are appreciated by this Association.

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., *February 29, 1916.*

DOUGLASS Co., *Cedar Rapids, Iowa:*

Gentlemen.—I regret to advise you that I am in receipt of reliable and authentic information that the firm of Powell & Co., of Philadelphia, Pa., are shipping Douglass Gluten into Canton, St. Lawrence Co., N. Y., to an association of farmers, known as a Co-operative Company, which, of course, is in direct opposition to legitimate dealers at that place. We have many dealers in that vicinity who are members of this Association who object very seriously to this business.

Inasmuch as we have had this matter up with you in regard to a similar proposition here at Waterville where these same jobbers were shipping your goods, I trust that you will now take the matter up very strong with this concern and put a stop to their operations in this line. I believe in former

correspondence, copies of which you sent me, you expressed very plainly to these people that unless they cut out that kind of business you would not permit them to handle your goods.

Thanking you for the favor of a reply, I beg to remain

Respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

DeVer Rogers.

William H. Rogers..

J. DEVER ROGERS & SON

Shippers of

Live Poultry, Eggs and Poultry Supplies

Also Dealers in

Flour, Feed, Grain and Fertilizer

OXFORD, CHENANGO COUNTY, N. Y., November 13th, 1915.

(Copy)

Mr. A. P. HUSBAND, 811 *Royal Insurance Building, Chicago, Ill.:*

Dear Sir.— We have a little matter that we would like to have you take up in your official capacity.

I understand that the Listman Milling Company, of LaCrosse, Wis., are members of the Millers' National Federation. Now, the Listman Milling Company keep sending their quotations and also are selling feed direct to the farmer. Within the last few days they have sent two carloads into this town.

The New York State Feed Dealers' Association, at a meeting held at Utica, N. Y., in June, 1915, also all of the local organizations of the State have adopted the following resolution:

"*Resolved*, That it is the sense of this convention that the members of the Central New York Feed Dealers' Association do not favor those feed manufacturers who persist in selling a part of their products through other than legitimate jobbers or retailers. That the president and secretary of this Association be and are hereby instructed to use their good offices in carrying out the cause of this resolution."

You will very plainly see how the local feed dealer feels in regard to a firm who still persists in selling direct. The secretary took this matter up with the Listman Milling Company, when they first began corresponding with one of these parties as the firm of which the writer is a member would have sold both of these cars of bran, and also this firm has always carried a stock of their bran on hand, also middlings and Marvel flour. Since they still persist in selling direct we have been obliged under our resolution, to cut out all of their goods and have substituted the Russell Miller flour, etc., instead.

Hoping that you will use your good offices to straighten out this matter, I remain

Yours truly,

CENTRAL NEW YORK FEED DEALERS' ASSOCIATION,

(Signed) J. DEVER ROGERS, President.

JDR/N

J. DeVer Rogers.

William H. Rogers.

J. DEVER ROGERS & SON

Shippers of

Live Poultry, Eggs and Poultry Supplies

Also Dealers in

Flour, Feed, Grain and Fertilizer

OXFORD, CHENANGO COUNTY, N. Y., *November 13th, 1915.*Mr. H. M. KING, *Waterville, N. Y.:*

Dear Sir.—Enclosed please find copy of a letter this morning received from Mr. L. F. Brown. I have answered same to Mr. Husband, giving him the resolutions adopted by the meeting at Utica, N. Y., also the resolution adopted by the Central New York Retail Feed Dealers' Association. Also copy of my letter to him.

Thanking you for past favors,

Yours truly,

J. DEVER ROGERS.

JDR/N

DeVer Rogers.

William H. Rogers.

J. DEVER ROGERS & SON

Shippers of

Live Poultry, Eggs and Poultry Supplies

Also Dealers in

Flour, Feed, Grain and Fertilizer

OXFORD, CHENANGO COUNTY, N. Y., *November 3rd, 1915.*

Mr. H. M. KING, *Secretary, New York State Feed Dealers' Association, Waterville, N. Y.:*

Dear Sir.—Quite a while ago the Listman Milling Company sent direct quotations into this town to a farmer, offering him their goods at the same price and less than they were offering it to us. These farmers came to our place asking for quotations and when we gave them to them they informed us that they could buy from the Listman Milling Company for \$1.00 and more less than we were asking them. I took up the matter with the Listman Milling Company, sending them the resolutions drawn up at St. Louis, the resolutions adopted at Utica and the resolutions adopted by the Chenango Valley Feed Dealers' Association, but nevertheless, they sold this party a car of bran. To-day another car of bran came in for the first man's neighbor, making two cars sold by the Listman Milling Company.

I wrote to Mr. Carrier a while ago and he said that I was taking the right course. I informed the Listman Milling Company that if they sold this car of bran without sending the commission to one of the feed dealers in our town, that I would notify the secretary of the New York Feed Dealers' Association, the different secretaries of the smaller organizations, as well as Mr. L. L. Brown, secretary of the American Feed Dealers' Association. I hereby notify you in regard to the two cars.

Also the George Q. Moon Company, of Binghamton, sold to the New York State Women's Relief Corps Home here a part of a car of feed at the same price that they are asking on their quotations. I was to-day talking with one of our feed dealers who buys a great deal from Moon, and asked him if they sent him the commission, and he said that it was the first that he knew about the feed being sold direct.

We always have a supply of the Listman goods on hand but have cut out their flour, middlings and bran.

Very truly yours,

JDR/N

J. DEVER ROGERS & SON.

The Farmer's Syndicate, Incorporated, of Cortland, applied for membership, but their check was returned and membership refused because they sold a car of grain for \$27.50 per ton to the farmers. The following letter shows the source of their information:

E. T. & J. G. WILCOX

Dealers in

Flour, Feed, Grain and Farm Produce

Coal, Shingles and Agricultural Implements

HARFORD, CORTLAND COUNTY, N. Y., April 28, 1916.

B. C. MYERS, *Harford Mills, N. Y.*:

The last car of Dewey's Dist. grains was sold out of car for \$27.50 per ton (bulk) to the farmers, as you will find that this price is about cost or not over 50 cents per ton profit. The car number was P. L. Car No. 531159. This price paid was given me from a farmer who they tried to sell to, but he did not take any. He is not a member of the syndicate.

Yours respectfully,

E. T. & J. G. WILCOX.

WATERVILLE, N. Y., April 8, 1916.

CHAS. L. CARRIER, *President, Sherburne, N. Y.*:

Dear Mr. Carrier.—Enclose some correspondence for you to read to-morrow.

Now this syndicate matter is a pest. If they are going to sell stuff all over in everybody's territory and certain manufacturers ship to these points, they are very materially interfering with other dealers' business who are members of the Association, and it looks very much to me as if Dewey Bros. were in it.

I am enclosing the Myers letter and one received yesterday, part of which I 'phoned you for Bennett's benefit.

I am in favor of returning Mr. Stoddard's application; what do you say?

Thomas suggests a joint meeting, etc., but that is out of the question, I think.

What do you think of Globe Elevator's reply? The letter they refer to was written Hunt, of Oswego, and he evidently has gulped up his brains to them. I enclose copy of letter written Hunt and the "trouble" referred to meant

only that we would take it up with the manufacturers of such goods, who might be our friends, and they would urge the Globe they did not wish their goods sold direct by them. This man Hunt must be a smart one. He is one of Richards' men and I have written Richards asking what kind of a fellow he can be.

Respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

The above letter was sufficient to justify the rejection of the applicant, as is shown in the following letter:

Capitalized \$60,000.

FARMERS' SYNDICATE, INC.

Retail Farm Supplies of Every Description
41 Elm Street

CORTLAND, N. Y., April 19, 1916.

Hon. CHAS. L. CARRIER, *Sherburne, N. Y.*:

My Dear Carrier.—I am in receipt of a letter from Mr. H. M. King, secretary of the New York State Retail Feed Dealers' Association, in which he has returned the application of the Farmers' Syndicate, Inc., to become a member of the Association. I can say that we did not expect this action, after the meeting at Binghamton in February and the action of the executive committee in rejecting this application is certainly a great injustice to our company.

The Farmers' Syndicate, Inc., is a corporation duly incorporated under the laws of this State, with a capital stock of \$60,000.00; and was incorporated for the purpose of doing a retail business in grains, feeds, seeds and all kinds of agricultural implements. We have been doing business since the first of February and I can assure you that we have had a very nice business and everyone is being treated in the same manner as to price or otherwise. It makes no difference whether a person has stock in the company or not, as to the price for which he is able to purchase, and our business is made up very largely among farmers and others who own no stock in the company whatever. Our business is purely a retail business. We have purchased a plant in the city of Cortland, at 41 Elm street, paying for the same \$15,000.00, and our business is all done from that place.

I cannot understand upon what evidence your committee has acted in determining that we are not purely a retail dealer. Surely, it must have come from some jealous competitor and not from a lack of business principle. I dare say that our profits in the feed that we are retailing are as much upon every ton of feed sold as any other dealer in the city of Cortland.

Now Mr. Carrier, I should like to meet your committee or yourself personally to meet any complaint or objection that may be offered against this company. I certainly can convince you or any fair-minded man that we are entitled under your constitution and by-laws to become a member of your Association and I assume that it would not undertake to do any regular dealer the injustice of not admitting it to membership.

This same matter was taken up fully with the New York State Implement Dealers' Association, through Mr. Grant Wright, of the "Eastern Dealer," and after his investigating the matter thoroughly he has accorded us a hearty welcome and is now saying some good things for us along the implement line. I am enclosing you a copy of his letter to us on March 17th, showing fully that we have been entirely misrepresented by competitors. I have written the secretary, Mr. H. M. King, a similar letter and hope I may hear from you very soon, advising me as to what course I should pursue to straighten up this difficulty.

Kindly advise me fully at your earliest convenience.

Yours very truly,

G. M. STODDARD.

GMS/P

WILLIAM J. CHANEY

Dealer in

Flour, Feed, Grain, Seeds,

Farm Implements

CLINTON, N. Y., *August 5, 1916.*

H. M. KING:

Dear Sir.—I received your letter yesterday in regard to car of Red Tag Bran to be shipped to Francis Jones. I remember last year they shipped car in here the same way and I called their attention to it and told them I didn't think it was fair to ship in my territory without consulting me first. They certainly played fair this time and I appreciate it very much. I thank you.

Yours truly,

WM. J. CHANEY,

Per C. N. C.

JAMESTOWN, N. Y., *August 1st, 1916.*

Mr. LINCOLN DAVIES, *Paris Station, N. Y.:*

Dear Sir.—Have your postal of the 31st to book and ship car Red Tag Bran to Francis M. Jones, Clinton, N. Y., at \$25.25 and make draft through the Waterville National Bank on you.

Mighty glad to hear from you, but we cannot see our way clear to accept any business on Red Tag Bran from you other than to be shipped to your place of business, which is Paris Station, N. Y.

If you want a car shipped to Paris Station, kindly advise.

Yours very truly,

AMES-BURNS Co.

(Copy)

WATERVILLE, N. Y., December 7, 1915.

Mr. CHAS. CLOCK, *Trumansburg, N. Y.*:

Dear Sir.—In conversation with Mr. J. W. West, of Chapin & Co., this morning, I have learned something of conditions in the feed trade in your locality and while we have a few members in Tompkins county we ought to have more, so that in taking up matters of direct selling affecting you dealers, we can present to those manufacturerrs and jobbers who are selling direct through various agencies in the section, not only the opposition of dealers as a whole, but a large representation of your own county.

Mr. West tells me of the operations of this man Sternberg and I understand he buys through a Cuba concern of which we have before heard.

We are gradually getting manufacturers and jobbers lined up with us and you would be surprised to know what actually is being done. What we want is to have members in every section of the State and to be kept posted on every case of direct selling.

In this way, keeping eternally after those concerns whose goods reach the consumer through other than legitimate channels, we will eventually show them that they cannot get away with such operations.

Of course, it is impossible to go into detail as to what has already been accomplished by this Association. I think you may know something of its activities. I could give you many concrete cases of direct selling that through taking up vigorously with the shipper, we have eliminated.

If you would attend one of our meetings I think you would be entirely satisfied that this Association is a good thing and is doing some good work for the dealer.

We would like very much to have you take out a membership in the Association, which costs but \$5.00 per year, and am sure you would not regret it. At any rate, wish you would write me and give me any information that would be of value to the Association, for we are endeavoring to help the retail dealer.

Yours very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., March 13, 1916.

SALES DEPARTMENT, QUAKER OATS Co., *Chicago, Ill.*:

Gentlemen.—I have before me a sheet known as The Tompkins County Breeders' Journal, and on the same is quoted, direct to the consumer, grain, flour and feed at wholesale by a farmer at Trumansburg, N. Y., by the name of Steinberg. He advertises a list of feeds both in mixed and straight cars and urges the farmers to co-operate and buy their grain, flour and feed at wholesale, get it from the car and stop paying for hauling and storage. His prices are for goods at any station within 20 miles from Ithaca in 20 ton lots; parts of carloads reshipped to nearby stations at one-half cent per cwt. per mile. I am advised that he gets his mixed cars of Phelps & Sibley, Cuba, N. Y.

I am bringing this matter to your attention for the reason that he is quoting Schumacher Stock Feed at \$29.40 in mixed cars and \$28.65 in straight cars and desire to know if you approve of Phelps & Sibley handling your stuff in this manner, for I believe there are a great many dealers affected by these quotations who are also handling your goods and this proposition certainly interferes with and injures the business of those dealers.

Awaiting your reply, I beg to remain

Very respectfully yours,

(Signed) H. M. KING,
Secretary.

HMK/D

(Copy)

WATERVILLE, N. Y., November 19, 1915.

NOWAK MILLING CORPORATION, Buffalo, N. Y.:

Gentlemen.—Replying to yours of the 1th inst., which has received the attention of our executive committee, beg to say we thank you for the expression of your attitude in regard to sales of your goods to other than legitimate retail dealers.

You are no doubt aware that dealers everywhere in the State are scrutinizing shipments more closely than formerly and that they are tracing them back to the source from which they come (when they are delivered to either farmers direct, or what amounts to the same thing, granges or co-operative companies)

We suggest that those mills or manufacturers who are loyal to the legitimate dealer, can use their influence to very great length in preventing their jobbers letting their goods get into other than legitimate channels.

Many jobbers are interested in the Retail Feed Dealers' Association and we know those quite well, also many others who are not interested by membership, yet who are as loyal, but there are a few who cannot yet resist the opportunity of selling through other than strictly legitimate channels.

Believe me, the manufacturer and jobber ought to be very loyal to the retail dealer, for if these direct-selling agencies had their way they would cut out the jobbers, as well as the retailers, then pool their orders and get you manufacturers to bidding for the business.

Another thing—your reference to sometimes selling an association or farmer in turning check over to dealer for the profit. This, of course, is all right when the dealer requests it, but it is a poor practice anyway, as it cultivates the idea of direct buying and the moral effect on the dealer's business it bad.

We would be pleased to hear from you further in regard to this matter or direct selling.

Yours very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

Albert Nowak,
President.

Maxwell M. Nowak,
General Mgr.

NOWAK MILLING CORPORATION
Millers Shippers
Domino Feeds

BUFFALO, N. Y., *November, 10, 1915*

THE NEW YORK STATE RETAIL FEED DEALERS ASSOCIATION, *Waterville, N. Y.:*

Gentlemen.— We acknowledge receipt of your letter of the 4th, advising that your Association has received complaints that this company sells direct to the consumer and over the heads of the legitimate dealers.

In our remarks to our numerous feed dealers and also at the different feed dealers' conventions, we most emphatically stated that our policy was at all times to sell to the legitimate dealer. We have turned down orders time and again from different so-called co-operative companies or granges, and have lost considerable business because of the stand we have taken. Our salesmen, who have also been with us for years, know the policy of this house, and they have also been approached very often, but have always declined the business.

There have been cases where it was possible to take an order from a local association or farmer that was turned over to the dealer. In cases of this kind, we invoiced and drew draft on the farmer and sent the dealer a check for his profit. We have done this purely upon instructions from the dealer and with his full permission. We have, on several occasions in the past, sold mixed cars of our feed to jobbers and vouch for the ultimate destination of these cars. However, because of the mere fact that the jobbers are interested in the Retail Feed Dealers' Association and its policy, there is no question in our minds but that the feed went to the dealer and not to the consumer.

We certainly feel bad to have pointed out to us a miscarriage of our policy, and if such is true, we certainly would be very glad to cut out any broker who would take the liberty of working against the policy of this house.

Your letter is a very fair one and we certainly are very glad to present to you our stand in this much discussed matter.

Wishing your Association success, we are

Yours very truly,

NOWAK MILLING CORP.,
Per M. M. NOWAK, Vice.-Pres.

MMN:F

THE NEW YORK STATE RETAIL FEED DEALERS' ASSOCIATION

OFFICERS

President, CHARLES L. CARRIER, Sherburne, N. Y.

Vice-President, W. C. RICHARDS, Parish, N. Y.

Secretary, H. M. KING, Waterville, N. Y.

Treasurer, M. J. MUDGE, Afton, N. Y.

Additional Member of Ex. Com., F. C. JONES,

Bullville, N. Y.

Associate Member American Feed
Manufacturers' Association.WATERVILLE, N. Y., *January 14, 1916.*CHAS. L. CARRIER, *President, Sherburne, N. Y.:*

Dear Mr. Carrier.—Your favor of the 13th at hand. Glad you had such a pleasant trip to Oswego and am sure they enjoyed having you with them. You did not state whether Mr. Richards was present or not, but judge that you would have mentioned it if he had been.

In regard to the printed matter and cuts, I have no suitable photo at the present time to have a cut made from, but I wrote Mr. Anderson of Milwaukee that I would have a real nice one taken shortly so that he could have it if he desired and possibly I may tend to the matter to-morrow and will get it out in time, if possible, for use in the printed matter which we are now preparing.

I received a letter from Jones this morning and will enclose the same for your attention and comment. His idea about the conference with the jobbers is somewhat different than I understood at first; however, you can say whatever you think about it.

I am enclosing copy of letter I am writing the Bartlett Company to-day. Do not know as I stated they shipped a car of distillers' grains in here.

As soon as they get a proof of the printed matter off, wish you would send it up so I can look it over.

Don't think of anything further to-day.

Very respectfully,

(Signed) H. M. KING,
Secretary.

HMK/D

WATERVILLE, N. Y., *January 14, 1916.*

J. E. BARTLETT CO., *Jackson, Mich.:*

Gentlemen.—There has been unloaded at this station car No. 62754 C. M. & St. Paul, containing distillers' grains from you shipped to the Farmers' Co-operative Company, which is a direct buying concern, unloading from car to farmers, to the injury of the local dealer.

Inasmuch as the writer is a regular legitimate dealer here, maintaining an establishment, employing men with families, paying large taxes and honestly endeavoring to make a living for himself and family. I take the liberty of writing you with the purpose of ascertaining if you appreciated the status of this body of consumers, nothing more or less, clubbed together to take advantage of the dealer who has always extended courtesies to them and

whom, according to the common ethics of business, it must be admitted is entitled to the patronage of his community.

I need not say that your action in shipping this car here to a body of consumers is in direct antagonism to me as a dealer and is hardly in line with statements made in former correspondence with me as secretary of the New York State Retail Feed Dealers' Association as to your policy towards direct selling and, therefore, I am inclined at the present moment to believe that in making the sale and shipment of this car here you were not really aware of its manner of disposal nor the purpose of those purchasing it, which I assure you is none other than to side-step or put one over on the dealer and is precisely in line with the spirit which prompts certain individuals to deal with mail order houses whom you well know are not contributors to the upkeep or general welfare of any community, either from a social or financial standpoint.

The organization, if it may be called such, to whom you have sold this car is not a popular one and I can assure you does not have the sympathy of the majority of people, either farmers or business interests. It is composed of a few disgruntled ones, such as you find everywhere, and who either want something for nothing, or else are so selfish that they do not wish to see anyone else make any progress and who would turn you down as quickly as us if someone came along and offered them any old thing at a little under your price.

The whole thing is begotten of a spirit pregnant with hostility to, rather than encouragement of community interest, and has not only affected the feed dealer, but has extended its baneful influence to every other class of business in our midst or in any other town where such propositions are being imposed.

The State Association of Retail Feed Dealers is not altogether altruistic in that it is looking after its own interests altogether. We are working in a co-operative spirit both with the manufacturer and consumer and as respects the latter, we propose to see that all goods are sold strictly in compliance with State and Federal Laws insofar as we are able to do so, and in this connection the writer has had called to his attention the fact that the car of distillers' grains shipped here by your firm were in sacks and that there were no marks on the sacks nor tags applied indicating or specifying the quality or brand of goods, analysis and weight, and while the writer saw a number of these sacks on farmer's sleighs, also in the car, which would bear out the intimation, I do not wish to even suggest the thought of complaint, but simply desire to impress upon you that we are not a one-sided organization by any means. We believe in living and let live and we also believe that there is business enough for all, but that it should be conducted along proper channels and that is through the legitimate dealer.

No manufacturer or jobber can reasonably expect to sell every dealer and the idea that a dealer can be forced to handle any feed is absurd because that principle can be worked to the disadvantage of those who attempt to carry it out in that you for instance might have a dealer customer, who like many others, is giving you a large share of his business, when along comes another manufacturer or jobber who might insist that your customer must handle some of his goods which are similar and represented equally as good and possibly so, with the threat that if he does not he will go out and sell direct. Now in such an event where do you get off?

I simply mention the above as an illustration. We sell our feeds on a quality basis; have facilities for State and private laboratory test and we will place our goods side of anything offered on the market and as low, if not a little lower, for we sell for cash.

I shall be very glad to receive the favor of a reply.

Yours respectfully,

HMK/D

Secretary.

The foregoing exhibits taken at random from the testimony are but an insignificant part and do not disclose one one-hundredth of the ill practices and vicious attitude of this Association.

SHORTAGES IN ELEVATOR WEIGHTS

A large proportion of the grain used in the State of New York is carried by lake boats from western ports and unloaded in elevators at the city of Buffalo. Usually, the companies operating the elevators have no interest or ownership in the grain, but merely perform the function of storing it at stated rates for the grain merchants. The grain merchant buying his grain throughout the Central Western States secures shipment on lake boats to the Buffalo elevator which unloads the grain from the boats and stores it until ordered by the owner to be delivered to customers throughout this or other states. Thus the grain that is received by boat is usually shipped out in carload lots to customers. These large grain elevators are equipped with weighing apparatus designed to weigh an entire carload of corn, oats or wheat at one draft. Manufacturers of flour throughout the State buy large parts of their supplies of wheat through these elevators. Manufacturers, merchants and stockmen oftentimes buy carloads of corn or oats.

From the evidence presented to this Committee, it may be said that there is a more or less systematic under-weighing of the carload at the elevator. As a result of this under-weighing, the buyer from the grain merchant receives from one hundred to one thousand pounds of grain less than the carload weight calls for. As to this systematic under-weighing, the buyer of the ordinary carload has little remedy. The grain merchant who sold the grain, when confronted by the claim for shortage, falls back upon the certified elevator weight as proof that the full shipment was made.

So far as the evidence before the Committee shows, the grain merchant is not himself at fault. He does not profit by the shortage. The only party who profits is the elevator operator or company. That certain of the grain elevators in Buffalo have made these shortages a source of substantial profit is plainly shown by the evidence. As has been suggested, due to the present lack of food traffic supervision by the State, the consumer or manufacturer who buys this grain is practically without a remedy. In a great majority of cases the feed dealer or stock raiser is without adequate facilities to accurately weigh the car of oats or corn purchased by him and ascertain whether or not it is one hundred or perhaps twelve hundred pounds under weight. He receives a full carload, pays for a full carload, and probably in the great majority of cases is unable to determine without going to considerable expense how much, if any, shortage exists. Even the manufacturer is unable, without considerable expense, to check up each carload as to weight. He should be able to rely upon the honesty and fair dealing of the elevator man handling grain of which he does not own a single kernel, to give him full weight, but the evidence establishes that there is no safety for him in such reliance. Even if he discovers the shortage, he cannot afford in the great majority of cases, to go into court of law to establish his claim for a shortage of from ten to fifty bushels in the carload, as the attendant legal expenses in litigating with an elevator company or a grain merchant one or two hundred miles distant would amount to more than the shortage involved. The Committee gives some of the evidence taken on this point for the consideration of the Legislature.

ARTHUR A. COWLES, called as a witness and sworn, testified:

"I live at 85 Burr street, Rochester, and am the vice-president and secretary of the Mystic Milling and Feed Company. We grind feed and ship mixed cars to dealers through the East. Our trade in this State is between Rochester and Utica. We endeavor to do business with whoever wants to buy in wholesale lots and have shipped to granges and others. Our business is mostly corn and oats; we make the Mystic Brand of stock feed for horses, cattle and swine. It is made out of hominy, corn meal and middlings, ground oats and barley, oat hull and middlings, ground oat hulls. There

is about five per cent. of oat hulls and oat middlings. The other feeds are compound straight feeds. Anybody that has the price can buy our grain. If all business was transacted according to the program of the New York State Feed Dealers' Association, we would have a universal boycott going on somewhere all the time. I see no reason why dealers in Niagara county should blacklist our company and refuse to handle our product because we had sold a carload of feed to a dairyman or a grange in Oneida county. There is no just moral reason.

Elevator Short Weights

"Our cars are running in short weights from Buffalo elevator companies more especially. We called in the Department of Weights and Measures on two occasions, once in June, 1915, and once in December. They tested our scales thoroughly, found it accurate, and while they were watching our unloading here the Department had inspectors in Buffalo at the different elevators. While these inspections were going on our shortages stopped.

"Shortly after the inspection was over, our shortages commenced to creep in again. These shortages would average from one to two and one-half per cent. We had one car of wheat that was three per cent short. The car of wheat should have contained 60,000 pounds and we were something like 800 pounds short on that one car. It was billed to us at 60,000 pounds. That made nearly thirty bushels. We were just three per cent. on that particular car, or thirty bushels. The car should have contained 1,000 bushels; it really contained 970 bushels.

"Then we were running consistently short on oats and corn from one to two per cent. I happened to see one of the letters of one elevator company during the correspondence with the State Department and in that letter this elevator company claimed they were entitled to a shortage of one per cent.

I maintained if they were entitled to one per cent., they might as well make it worth while and steal ten per cent. I was instrumental in introducing a bill in the Legislature last winter providing for the public weighing of grain in terminal elevators under the supervision of the Superintendent of Weights and Measures. That was opposed by the Corn Exchange of Buffalo and we did not

get it through. Since that fight last winter, the shortages of our particular company have stopped. We believe they have us spotted as kickers and therefore we get our full weights. In a year and a half our shrinkages amounted in dollars and cents to over \$1,800. This money was taken out of our company by short weights at the Buffalo elevators.

“These shortages do not apply to those caused by leaky cars. Where we find a car leaking, we call in the railroad men and have them certify it was leaking and then if a shortage occurs we make claims against the railroad; but these shortages were all on cars in perfect condition. We couldn’t make any claim.

“There is no substantial or necessary loss in the shipment by rail of these grains in perfect cars. We get grain from as far west as Peoria and even from Sioux City, Iowa, with no shortages. The elevator companies do not attempt any explanation unless it is the one that they are entitled to one per cent. shortage. They stood on their dignity and said the grain was there when it was loaded. They claimed they were entitled to a variation of one per cent. for variation in scales, but we claimed that in that case the variation would not always go one way. If this was a legitimate variation, sometimes we would get a car over weight. If a man buys a bushel of grain or a thousand bushels of grain, he is entitled to it. He has paid for it.

Weighing Methods

“These carload lots are weighed in hopper scales in the top of the terminal elevators and then it is put into a chute and dropped into the cars from the hopper scale in the top of the elevator.

“The cars are first coopered. Then they put the grain doors in and stop all leaks in the car and shoot the grain into the car from the top of the elevator. The grain goes into the hopper scales from another chute elevated up into the hopper, shut off, weighed and dumped, one weighing for a whole carload.

“The Sealer of Weights and Measures is supposed to test these scales two or three times a year.

“The simplest way to check these weights is to make a public matter of it, the same as they have done in Illinois and Minnesota. Nearly all of the grain-growing states have both the weights and grain under the supervision of the State. It amounts simply to a

practice of shipping short weight quantity in bulk and billing it as the full quantity.

"We had some shipments true to weight. Some elevators were very careful to give full weight. We could say we could discriminate against certain elevators and now we try to make inquiries what elevator it is coming from before we buy it. We always get the short weight in certain elevators. Four of them are controlled by a man named Pierce; one, Evans; another one, Wheeler, and another one, the Monarch. Those are the three we get the worst shortages from.

"I understand the scales in those elevators have been found to be correct by the Department of Weights and Measures. We got those shortages all along last winter. We have the shipping bills for these cars and will be glad to turn over the check weights and bills to the Committee with the car numbers and dates.

"Our company has nothing to complain of now since we caused that bill to be introduced, but as a result of this practice, whenever we could, we discriminated against Buffalo and bought direct from the West where we get public weight certificates. In the State of Illinois we never have any shortages.

"I was told, when a bill was introduced, that the State could not afford to spend any money. We got that bill out of the Senate, but it died in the Assembly.

Consumer Bears the Burden

"If there is a uniform practice of short-weighting and the receiver of that grain becomes acquainted with it, he simply adds that percentage onto his cost and the consumer has to bear it. If the dealer is short on the bulk car he cannot make short weight bags, but has to make full weight bags and simply adds the shortage on the price."

PROFIT FROM SHORT WEIGHTS IN ELEVATOR COMPANY'S ACCOUNTS

After receiving testimony of the foregoing nature, the Committee undertook to ascertain whether such shortages resulted from the operations of the Buffalo elevators and what the result of such shortages were to the elevator companies. For that purpose, the

books of account of certain elevator companies and accompanying testimony from the elevator managers was sought.

WILLIAM B. GREGORY, called before the Committee and sworn, testified:

"I live at 19 Crescent avenue in Buffalo; am manager of the Dakota Elevator. It is a corporation owned by Buffalo capitalists. John H. Brinkman is acting secretary; Edward Michael is president. The business of this corporation is lifting and storing and shipping grain. We only store other people's grain. We own none of it and we sell no grain on our own account. We lift the grain from the lake boats that come to Buffalo and store it for various peoples' accounts whom it may concern, then we ship it out on their directions. Shipping directions are given to the man that has charge of shipments. The owner draws an order on the elevator for the shipment of a specific lot of grain. The identity of all grain is preserved. It goes down in different holds of the boat. The elevators at this port do not simply take the grain and return it in kind; not the lake grain elevators. Each man who puts in grain into our elevators gets back his specific grain. We have a great many separate storage bins. The identity has to be preserved.

"A standard carload of wheat is 1,000 bushel, weighing 60,000 pounds. The cars are set into the elevator and we load the grain as the cars are received. The car goes directly under the elevator chute and the grain runs from the scales into the car. Our scales weighs 250 bushels at a draft. It is filled, weighed and dropped into the car. If a man had 50,000 bushel stored in our elevator and 50 carloads were shipped out, that would clean it all out."

Mr. Ward.—Here is a witness that ordered 5,000 bushel loaded at your elevator and his first car was 580 pounds less than 1,000 bushel; the second car was 720 pounds less than a thousand bushels; the third car was 840 pounds less than 1,000 bushel; the fourth car was 360 pounds less than a thousand bushel; the fifth car was 680 pounds less than 1,000 bushel, on weighing. That is, it was short \$97 worth of grain.

Mr. Gregory.—Well, that could be occasioned from the fact in the difference in the scales. Maybe his scales are not quite correct as they might have been; maybe his scales weigh in smaller capa-

city than the scales which weigh the grain out. I know nothing about that.

There is always supposed to be a representative of the railroads that load the grain. The stuff is weighed out under the directions of the Corn Exchange under the Weighmaster's department of the Corn Exchange of Buffalo. A lot of the stuff is weighed out by the supervising agent of the different railroads. We have received complaints of shortages probably two or three times a year. We investigate and find out about it. Find out if the stuff was loaded on the orders called for; if we find that the orders were loaded all right, we simply say so.

Mr. Ward.—Isn't there any trade custom of allowing shortage on a thousand bushel, say one per cent.?

Mr. Gregory.—I could not tell you that, sir. I am not in the grain trade and don't know anything about it. If shortages did exist, we would have a surplus. You may have a few bushels there and those few bushels we dispose of certainly.

Mr. Ward.—How?

Mr. Gregory.—Well, you wouldn't give it away; you would have to dispose of it through some broker or somebody in the grain business; you wouldn't sell it yourself; wouldn't be in a position to sell it. It would take a long time to accumulate a carload. I don't know just exactly how it would go into the books of the company when sold. It would have to be credited somewhere. It isn't any perquisite of the weighmaster or the managers.

No Shortages Allowed in Weighing In.

If a bill of lading calls for 50,000 bushels of grain and the steamboat comes to the elevator and in taking the grain out of the boat you only find, we will say, 49,000 bushel, that is arranged and straightened out and handled by the vessel agent and a concern called the Lake Grain Clearance Association here in Buffalo. We can only give a receipt for exactly what we take out of the boat and that is all the shipper gets credit for.

Mr. Ward.—But after you have shipped out John Smith's 50,000 bushel, if you have got 100 bushels over that is sold by the elevator company?

Mr. Gregory.—Well, it is, and it isn't. Now, you asked me the question, when I first sat down here, if we ever sold any grain. When you asked that question, I figured in my own mind that you intended I should say I was in the grain business in selling grains. Now, I am not in the grain business and we would certainly necessarily have to sell this grain if we had any over-run.

Mr. Ward.—Why not credit it to John Smith?

Mr. Gregory.—Well, it would be pretty hard to tell exactly who owned the grain, so many people participate in it; you could not tell where it belonged.

Mr. Ward.—Each storage is in bulk?

Mr. Gregory.—Yes, sir; it is.

Mr. Ward.—Each lot is kept distinct?

Mr. Gregory.—Yes, sir; it is. There would be no trouble in knowing that the surplus belonged to a certain consignment, but these consignments change hands twenty-five times. The original storer might not have any equity in it at all. You could credit it to the man who turned in the receipt, but it would be an endless chain of business; you would never get through with your business.

Mr. Ward.—It is easier to sell it then, and credit it to the elevator's account?

Mr. Gregory.—It has been, as I have understood it, that the stuff that accumulates that way is the property of the elevator, but I want you to distinctly understand that I did not understand the question you put to me in the first place, because the grain is sold; therefore, going back to my statement we have sold grain; we have sold it to different people. A shortage of 700 pounds of oats on a car would be twenty-two bushel; 1,200 pounds of wheat would be car would be twenty-two bushel. 1,200 pounds of wheat would be twenty bushel. I have never investigated the average shortages. There is no weighmaster of the port of Buffalo now. The Lake Grain Clearance Association only attends to shortages in the grain when it is delivered to the elevator, when it is weighed in.

Mr. Ward.—Say a miller in Binghamton gets the car and pays the draft, takes the bill of lading and gets delivery, he has paid for

the carload of grain; he finds that he is twenty bushel short of weight at \$1 a bushel, \$20; and he sends a statement to your elevator company that you owe him \$20 for twenty bushels of wheat, and you do find the twenty bushels in your bin there, there would not be much trouble or bookkeeping about remitting him that \$20 when you found the excess?

Mr. Gregory.—He would not send a statement to us for it for he hasn't done any business with the elevator; he has done business with the man who put the grain in the elevator.

Mr. Ward.—We have got a statement here of the Mystic Milling and Feeding Company that they furnished the Dakota Elevator showing an indebtedness in this way of \$113.63 for these shortages and claim they forwarded it to your people, but could not get attention.

Mr. Gregory.—Well, we may have done that, but I say the customary way to do would be to send it to the man he bought the grain from.

Mr. Ward.—Well, but that man has gotten his money and the miller has gotten his grain, except the shortage and the account is closed and the grain merchant refers him to the railroad company or elevator man, does he not?

Mr. Gregory.—Well, he could do that; he could refer him to the railroad agent. We have not necessarily got their shortages here. There are a great many shortages that are occasioned from the fact of the condition of the railroad car. Of course, it is not all that way. Fair dealing might require that this man gets credit on the elevator books for the amount of his shortage if it was actually found that we had it in our elevator. But if we allowed his claim, all of these people would have shortages when they didn't have them and the elevator company wouldn't have a dollar left. You know an elevator scale is a pretty big thing when you commence to weigh fifteen or thirty bushels at a time.

The Buffalo Scale Company looks after the scales and there are other scale people here. I cannot recall whether they are the ones that look after our scales this spring; the scales are tested three or four times a year. Weather conditions and being located on the water where there is dampness, all these things have a tendency to

make the scales go one or the other. We weigh it in one or two weights, but the man down in the country weighs it into a wagon and the stuff blows away. We have got some books that show our sales of grain for 1915 and 1916. I have charge of making those sales. I sold the last lot here to Mr. Engle in the Ellicott Square Building. He is a grain merchant.

Mr. Ward.—What did you sell him?

Mr. Gregory.—I couldn't tell you that, sir.

Mr. Ward.—Well, what was it, corn or wheat?

Mr. Gregory.—I think wheat.

Mr. Ward.—How many bushels, approximately?

Mr. Gregory.—I could not answer that.

Mr. Ward.—A carload.

Mr. Gregory.—Yes, more than a carload.

Mr. Ward.—That would be a thousand bushels.

Mr. Gregory.—*Probably two or three thousand bushels.* I think that sale was made sometime this spring. I have not sold any since. I cannot tell when I made a sale before that. That transaction of this wheat entered on our books and the proceeds of the sale went to our company.

Mr. Ward.—You must have something in your bins now.

Mr. Gregory.—We have got quite a lot in our bins at the present time. We can get at it when we clean up the elevator, when we get through with the current receipts, along about the 1st of April. We never clean up the elevator; it has a capacity of a million bushels, and there is always at least two hundred and fifty thousand bushels of grain.

Mr. Ward.—We wonder, how did you find out you could afford to spare anyone two or three thousand bushels of wheat last spring?

Mr. Gregory.—We take the cargoes and see what the cargoes call for, figure up the number of cargoes we have in the elevator and if those cargoes call for so much grain, we re-weigh that grain to see that our outstanding warehouse receipts are properly taken care of.

Mr. Ward.—Then what? When you find that your outstanding warehouse receipts are properly taken care of?

Mr. Gregory.—Then if we have gotten everything cleaned up, if there is any little surplus there, we figure it belongs to the elevator and we dispose of it. I could not say how often we do that without looking back.

A man, Mr. J. E. Finley, is superintendent of our weighing men; we have a number of them. He is not there when all weighing is done. Our instructions are to give everybody all that is coming to them and I know what the reputation of the elevator is. The scale beam on a big scale of this kind, if it comes up very strong you are gone, that is all. If you bring that beam up strong every time you weigh out a car, you wouldn't have grain enough in the elevator to cover the warehouse receipts. It is rather a delicate job to get a fair balance. The weigh man must prevent its going up strong; it is part of his duty; it is adjusted so that a nice balance can be readily obtained, and it is the weigh man's duty to get that nice balance. It can be graduated down to a pound.

Mr. Ward.—Do elevators have a variegated reputation in this respect?

Mr. Gregory.—Well, I wouldn't want to answer that question; it would put me in a position that I don't want to be in.

Mr. Ward.—I suppose that with the soulful desire to accumulate a surplus this two or three thousand bushel might be readily run up to ten thousand.

Mr. Gregory.—You could do that, but that would be absolutely stealing. That would be premeditated robbery. There would have to be a foregone thought to steal to do that. The surplus that is accumulated by us is entirely incidental to the operation of the business and not deliberate and purposeful light balance. By a little manipulation, the accumulation could be largely increased. If you want to go on and steal that stuff you could steal it and still be doing business, but after a time the men who sell the grain in the first place would not put any more grain in your elevator, so you wouldn't have any business. Of course, there are a lot of grain men and there are times when no elevator will be empty. Fifteen

thousand bushels of grain would be a very unusual amount of grain for anybody to put in the elevator. The amount would be larger. Some of the boats that come to Buffalo bring six hundred thousand bushels of grain. Five hundred thousand bushel would be a more representative amount to be stored in the elevator by one merchant. In our books the sales of grain are carried into earnings. It is not kept in a separate account.

GODFREY MORGAN, called before the Committee, testified:

"I am the manager of the Kellogg Elevator Company, Gansen street, in the city of Buffalo. I have the management of the entire business of the elevator and we keep books.

"We make a trial balance and we can get that trial balance for you."

Mr. Ward.—What do you do in your elevator with the proceeds of the sales of surplus grain?

Mr. Morgan.—We put them into an account called, "Over and Short." That account is in the books. I have that trial balance sheet here. (Paper admitted in evidence and marked Committee Exhibit 164.) Exhibit 164 is our trial balance for August 31st. We carry in this trial balance this account from the 1st of May, 1916. The numerals in front of the item are the ledger account pages. Ledger page 243 shows, "Over and Short, \$5,473.46." That represents credits, but something like \$4,000 of that was recovered from one of the employees who had been stealing grain at the elevator, and we made him pay that back for the theft; but to whom that grain belongs I don't know and never have been able to tell. The grain was returned to us. It was in a canal boat and I recovered the canal boat, brought it back to the elevator and had it re-elevated and it is through this, the inventory of the value of the grain which we take every month into the "Over and Short" account. That was recovered in July.

Our June trial balance showed about \$1,000 overage from the 1st of May, from May the 1st of this year, so that the accumulation from May 1st to June 31st would be about \$500 a month. The dust account is for dust which we have sold from the elevator. We gather the dust from all over the elevator, put it in bags, and it now has a slight market value. We sold \$183.04 worth. That is

probably two carloads. It is put into the molasses foods to be sold to dairymen for cattle. It looks like ordinary dust to me. It does not require any grinding; it is just mixed in what they call the molasses food. I am just telling you hearsay on this. That is the information I have about it.

There is another item there, the grain account of \$5,645. That is grain as against the over and short account. It is an asset. We keep that separately.

Mr. Ward.—That is on page 154, we find grain account, \$5,645. What is that?

Mr. Morgan.—That is just a book charge. I don't know; that must be the grain earnings probably.

Mr. Ward.—That is, sales of grain?

Mr. Morgan.—Sales of grain, yes.

Mr. Ward.—Do you know where these sales came from?

Mr. Morgan.—No, I don't; I presume partially from overages; mostly, I presume, from overages. These overages came from surplus after the shipping orders represented by the receipts are filled. We weigh all the grain as it comes in.

Mr. Ward.—Well, now, we find mill men saying such things as this: On September 4, 1913, car number 109,791 on the New York Central was short 485 pounds of containing 60,000 pounds of wheat, and on September 13th, car number 75,079 on the West Shore Railroad was short 1,540 pounds of wheat. Now, how would you say that happened?

Mr. Morgan.—I don't think anybody can say how those things happen and be definite about it. I don't believe that two scales ever weigh alike. I don't believe that the grain weighed twice over ever weighs alike. I think the mistake is more apt, a great deal, to be at the other end than it is at the Buffalo end.

Mr. Ward.—If the mistake was always at the other end you would not have this over and short account.

Mr. Morgan.—No, that is absolutely true.

Mr. Ward.—So that the mistake must sometimes come at your end?

Mr. Morgan.—Undoubtedly, it does. We use any bin for the overages. We have sixty bins in our house. A car of corn weighs 56,000 pounds and we aim to deliver that for a car. The Clearance Association has nothing to do with the out-store grain; that only regulates the in-store grain. If we found we had some corn over, we wouldn't know who to credit it to.

Our scales weigh 60,000 pounds at a draft. A slight difference in the location of the beam would not represent a couple of hundred pounds. You are supposed to be particular not to over-weigh or under-weigh.

The railroads, who handle export grain, will not take the Buffalo elevator weights as they are held responsible for any shortage, so the Trunk Line Association superintends the weighing of all cars that go to New York for export, but local business throughout the State that goes to dealers or others, the Trunk Line Association pays no attention to. We make no practice of settling claims for shortages on cars.

JAMES A. STEVENSON, called as a witness, testified:

"I live in Buffalo and am manager of the Mutual Elevator. That is owned by the Mutual Terminal Company of Buffalo.

"We have some surplus of grain. That has been sold and put into the earnings; we put it into the miscellaneous earnings. We had no accounts of overs and shorts but we have had shortages. When we had shortages we filled them from the overs, or paid for them. We handle a great deal of grain and if the owners consent we deliver in kind. We sometimes have considerable overages, but how much I couldn't tell you offhand. Any shortages in our elevator are very small and are taken care of."

CONCLUSION

From the above testimony, it clearly appears that carload lots of grain are shipped out from certain Buffalo elevators short of their required amount; that substantial amounts of this grain remain in the elevators and are made a source of profit from elevator operations. The admission that in one elevator three thousand bushels of wheat had been accumulated in this way in one season and applied to the profits of the elevator, while in another \$10,000 had

been accumulated in one year from sales of such grain, shows sufficient justification for the complaint that systematic shortages are permitted to exist. It is suggested that this is only one form of abuse to which the traffic in foods and feed stuffs is subjected in this State. These abuses, while small in themselves, exist at many points and in all sorts of food traffic. Taken separately, they are not of sufficient importance perhaps to secure attention from the State, but taken as a whole this multitude of abuses and little frauds becomes a considerable burden upon the consumer and producer.

For this reason, it suggests itself that a comprehensive State Department, equipped to examine into and make public all sorts of ill-practices of this sort, will in itself, afford an effectual remedy for a greater part of them. It would seem that this is an end greatly to be desired. The expense of such a department will be returned to the people of this State many times by saving the producer and consumer from a multitude of petty thefts, frauds, impositions and oppressions from which at this time they have no protection, except a resort to the courts of law. But a resort to the law courts affords no remedy to the ordinary individual in such cases. He can afford neither the time nor the money and he suffers the imposition in silence while the crafty and the cunning by these collective impositions secure substantial profits, all of which practices become an ultimate burden upon the consumer and tend to increase the cost of living.

POULTRY AND POULTRY PRODUCTS

This Committee has not been able to give extensive consideration either to the production or distribution of dressed poultry or eggs in the State, from the fact that nearly each day its time has been devoted to the more pressing problems which are referred to in this report. This question is one with which the people of our cities, and especially the people of the city of New York, are greatly concerned. Dressed poultry and eggs is one of the most important part of the food supply of the larger cities. The amount of business in these products is enormous. For several years past, it seems that no branch of feed supply has been in so troubled a condition as the preparation and distribution of poultry and

eggs. The lower courts in the city of New York and the grand juries of the county, have during later years devoted a great deal of time and money in attempts to remedy existing conditions. The Committee regrets that up to this time it has been unable to go into this matter.

Without a full and complete understanding of the conditions surrounding the traffic, the Committee is unable to make any suggestions as to possible remedy for the troublesome features. The legislation here proposed should be able to afford to the people of the cities a thorough understanding and competent dealing with the questions involved. It is recommended that in considering legislation to be advanced for this purpose, that those difficulties encountered by the people of the city of New York in securing at reasonable price an adequate supply of dressed poultry for its inhabitants, should be borne in mind and means and facilities provided to afford relief. Of course, this suggestion applies in a larger sense to all products necessary for the comfort and well-being of the inhabitants not only of New York city, but of the other cities of the State. It is because of this that the Committee finds itself charged with the duty of preparing and recommending legislation, which shall not only provide remedies for existing ills in the matter of dairy products, but shall apply and afford relief so far as possible to the entire question of the food supply of this State. To attempt to recommend legislation applicable only to dairy products and poultry would be to attempt to act upon only a part of food products, which, however important in themselves, yet readily lend themselves to remedies which are designed to reach the entire food situation in this State.

EGG AND BUTTER INVESTIGATION

The Committee has been unable to give any of its time to the investigation of the alleged evil practices of commission men and of the butter and egg trade. It has, however, examined into the report of Hon. Edward R. O'Malley in the present proceedings instituted on the petition of the Attorney-General and has also had access to the record of those proceedings and the evidence and exhibits introduced. It has, therefore, believed that it is proper to include as part of this report the referee's report in that proceed-

ing. This report suggests strongly that conditions prevail in the distribution of food stuffs to the people of the city of New York and devices affecting the market price thereof are operated which the State should no longer permit. In preparing the legislation, as instructed by the Legislature, this Committee has in mind the conclusions reached by the referee in this report, and the proposed legislation is especially designed to effectually restrain and prevent the evil practices and methods there found to exist. To attempt to remedy existing evils in the distribution of dairy products without including therein matters such as are shown to exist in this report, would be a mistake. With this consideration in view, the Committee appointed by the Legislature has taken up the matter of appropriate legislation with the Mayor's Committee of the city of New York, and with a committee appointed by the Governor of the State of New York. After giving the subjects in hand as full a consideration as the time permitted, the three committees designated as Governor Whitman's Market Commission, Mayor Mitchel's Food Supply Committee, and the Wicks Legislative Committee, have joined in a report which has heretofore been made and which is included in and made a part hereof.

REFEREE'S REPORT IN THE BUTTER AND EGG INVESTIGATION

SUPREME COURT — COUNTY OF NEW YORK

IN THE MATTER

of

The Petition of JAMES A. PARSONS, Attorney-General of the State of New York, for an order directing certain persons to appear before a Referee for examination, pursuant to chapter 25 of the Laws of 1909, as amended, being an Act "Relating to General Business" constituting chapter 25 of the Consolidated Laws, and entitled "General Business Law," in effect February 17, 1909, and particularly article 22 of said chapter.

Hon. EGBURT E. WOODBURY, *Attorney-General, State of New York:*

Dear Sir.—On October 9, 1914, your predecessor, the Hon. James A. Parsons, on a petition as Attorney-General, instituted a proceeding in the Supreme Court, New York county, and secured an order from Hon. John Ford, one of the Justices of said Court, directing that certain persons appear before the referee to be named for examination pursuant to chapter 25 of the Laws of 1909 as amended, constituting chapter 25 of the Consolidated Laws and entitled "General Business Law." By said order, I was appointed referee to take the testimony of the witnesses referred to in the petition and also such other witnesses as might be subsequently ordered to appear in said proceeding to be examined. The first hearing under said order was held on the 22d day of October, 1914, in the office of the Attorney-General, 299 Broadway, and were continued until on or about the 17th day of December, 1915, when the evidence was closed. Deputy Attorney-General Franklin Kennedy represented the State on said hearings until about the 20th day of January, 1915, when, owing to other engagements and a subsequent illness, he was unable to proceed further, which caused the delay in the taking of the testimony. Deputy Attorney-General Alfred L. Becker thereafter took charge of the matter and closed the testimony December 17, 1915.

The petition of the Attorney-General, among other things, alleged that it had been determined to commence an action or proceeding under section 342 of the General Business Law and under section 131 of the General Corporation Law for the annulment of the charters of certain corporations therein mentioned, but particularly the New York Mercantile Exchange, and further to bring actions against certain foreign corporations under section 1948 of the Code of Civil Procedure.

The petition alleged that the New York Mercantile Exchange was a domestic corporation and its by-laws states the object of the association to be to inculcate equitable principles of trade, establish uniformity in commercial usages, disseminate among its members business information, reform abuses and pro-

fect the trade against unlawful exactions, adjust differences between the members and promote good fellowship and friendly intercourse among them, but that in fact the Exchange has by fixing and designating the grades and classifying the quality of the butter and eggs received on the market in New York city, by manipulating offers and bids for butter and eggs under the "Call" and by permitting many of the sales under the "Call" to consist of "washed" sales it has illegally and fraudulently affected the market for butter and eggs for the personal benefit of a small percentage of the persons, firms and corporations having a controlling interest in the Exchange; that the sales under the "Call" were false and fraudulent and not representative of the selling values of either butter or eggs in the New York market and are in many instances issued to deceive the producers on one hand and the general consuming public on the other hand.

That between the years of 1903 and 1907 there existed as a part of the machinery of the Exchange what was known as the Butter, Egg and Cheese Quotation Committees, whose duty it was to establish quotations on all grades of butter, eggs and cheese and have the same posted daily on the bulletin board of the Exchange. These daily quotations were published in the "Producers' Price Current" as the official quotations of the Exchange; that said quotation committees discontinued the practice of recording, making and publishing these quotations after August 7, 1907, because of a judgment of the Supreme Court restraining them from so doing. This judgment was entered in an action brought by E. E. Martin, a member of the Exchange, who charged that the recorded and published quotations of the butter committee were false and fraudulent and not representative of the selling values of butter obtainable from wholesale transactions at first hand and that the quoted butter prices were from $\frac{1}{4}$ of a cent to $1\frac{1}{4}$ cents lower than the true market value.

It is further alleged that the Exchange obeyed this injunction until about January 9, 1908, when its quotation committees were reorganized and published quotations as before, that on June 7, 1909, a committee appointed by Governor Hughes and known as the "Governor's Committee on Speculation in Securities and Commodities" reported that while the quotations of the products appearing in these Exchanges (Mercantile and Metal) are printed daily in the public press, they are not a record of actual transactions amongst the members either for immediate or future delivery; that upon the "Calls" sales are confessedly rare and that the committees were actually close corporations of the buyers of butter and eggs and the prices really represented their views as to the rates at which the trade generally were ready to buy butter and eggs from the farmers and country dealers.

On or about August 23, 1909, the Exchange having been advised of the report of the Governor's Committee, again dissolved its quotation committees.

That thereafter the Exchange established what may be called the "Urner-Barry Price Mechanism" through the medium of the "Producers' Price Current." Representatives of this publication each day called on five or six firms or corporations engaged in the egg and butter business at their places of business regarding prices and made similar inquiries of other dealers on the floor of the Exchange and also ascertained information of the relative movement of eggs and butter the day before and made inquiries of the prices obtained for sales under the "Call." Each day's quotations were made and

posted on the bulletin board of the Exchange. These were the official quotations for the day.

It is further alleged that in 1912 the District Attorney of New York county instituted a John Doe proceeding to inquire into the practices of the Exchange regarding the matters aforesaid, the result of which was that the Exchange discontinued the practice of posting quotations on the bulletin boards of the Exchange which satisfied the demands of the District Attorney. No official price quotations have been posted by the Exchange since that time, but it is alleged that the same results have been obtained through the continued publication of quotations in the Producers' Price Current which has continued ever since to publish quotations of the prevailing prices which are generally accepted as the prices established by the Exchange. It is alleged that the Exchange is not maintained for the purpose set forth in its by-laws, but is nothing more or less than a conference of big dealers who disseminate information and misinformation with respect to prevailing prices and that by concert of action the Exchange possesses the power through the instrumentality of the "Call" to inflate or depress prices and that through the "Producers' Price Current," the proprietors of which are members of the Exchange, the Exchange carries on the same practices it did formerly by virtue of its quotation committees.

The petition further sets forth the names of the members of the committees of the Exchange for 1913 and 1914 together with a list of all the members of the Exchange.

It further sets forth briefly the substance of sections 90-143 of the General Business Law relative to regulating the general business of warehousemen, and section 16-A of the Public Health Law, relative to regulating the cold storage of food and cold-storage warehouses and calls attention to the provision that cold storage food shall not be kept for a longer period than ten months except butter products and that the State Commissioner of Health is vested with full power to inspect and supervise all places used for cold storage or refrigerators and to make rules and regulations for their proper conduct, and setting forth a list of the cold storage warehouses in the city of New York subject to the provisions of such acts.

The petition further alleges that by storing enormous quantities of eggs in cold storage warehouses during times of great productivity and keeping them stored until times of less productivity the price of eggs is thereby affected.

The petition further alleges that the great packing houses own and ship more than 50 per cent. of the eggs reaching the New York market; that these companies gather eggs from all sections of the country and store them in the warehouses in Chicago and at other western points and then ship these eggs to New York at their pleasure and are not subject to the supervision of our public health laws, and that an inferior quality of eggs reaches the New York market without being subject to the Public Health Law of the State; that said packing companies assist in controlling the price of eggs in the New York market and that there is some kind of an agreement or combination between the Exchange, the cold storage companies and the packing houses and eggs dealers whereby competition in the supply and price of eggs in this State

is restrained and prevented, which agreement is contrary to law and illegal and void.

Upon all the information and evidence-adduced upon said hearings, I have deemed it advisable to report to you the most important things which have been proven.

The object of said Exchange, as set forth in its by-laws, is as alleged in the petition and that the mechanism adopted by the Exchange for making, recording, posting and publishing quotations of the daily market value of eggs, butter and cheese, through its quotation committees between the years of 1903 and 1907, as alleged in the petition, is true.

HISTORY OF LITIGATION, INVESTIGATIONS MADE BY GOVERNOR HUGHES' COMMITTEE ON SPECULATION IN SECURITIES AND COMMODITIES AND INVESTIGATION BY THE NEW YORK DISTRICT ATTORNEY

Martin Action

In 1907 the firm of G. W. Martin & Brother, members of the Exchange, brought an action in the Supreme Court of Kings county against the Exchange for an injunction against the defendant restraining it from "issuing or publishing quotations of the values in the New York wholesale market of any of the grades of butter at other than the selling values of the same, commonly obtainable, as shown by wholesale transactions at first hands." The case was tried in May, 1907, before Mr. Justice W. H. Jaycox at a special term without a jury. The court found that for more than two years last past the defendant had issued and published daily quotations of the values in the New York wholesale market of the different grades of butter and that in a substantial proportion of cases those quotations were "untrue and not representative of the selling values of the same," and that the quotations for a certain grade of butter qualified as "extras" were in a vast majority of cases "untrue and not representative of the selling values of the same," and that said untruthful quoting of the market by the defendant was "wilful, deliberate, intentional, fraudulent and systematic," and that such untruthful quoting of the market was a violation of the defendant's charter requirement that it diffuse "accurate and reliable information." Thereupon the court gave judgment in favor of the plaintiff restraining the defendant from "issuing or publishing quotations of the values in the New York wholesale market of any of the grades of butter, at other than the selling values of the same commonly obtainable as indicated by wholesale transactions at first hands." (Exhibit 21.)

Following this decision, the Exchange discontinued making and publishing quotations through its quotation committee until January, 1908, when its quotation committees were reorganized and the Exchange contends it undertook to publish these quotations in accordance with the decision of the court in the Martin case.

REPORT MADE BY GOVERNOR HUGHES' "COMMITTEE ON SPECULATION IN SECURITIES AND COMMODITIES

In June, 1909, Governor Hughes appointed what was known as the "Governor's Committee on Speculation in Securities and Commodities." The members of this committee were men of the highest standing. The chairman was Hon. Horace White and the purpose of the committee was to ascertain "what changes, if any, are advisable in the laws of the State bearing upon speculation in securities and commodities, or relating to the protection of investors, or with regard to the instrumentalities and organizations used in dealings in securities and commodities which are the subject of speculation." The committee's report to the Governor was dated June 7, 1909, in which the committee gave its opinion that the "Mercantile and Metal Exchange do actual harm to producers and consumers and that their charter should be repealed."

Dealing further with the Mercantile and Metal Exchanges, the report says:

"Although quotations of the products appertaining to those Exchanges are printed daily in the public press, they are not a record of actual transactions amongst members, either for immediate or future delivery.

It is true that on the Mercantile Exchange there are some desultory operations in so-called future contracts in butter and eggs, the character of which is, however, revealed by the fact that neither delivery by the seller nor acceptance by the buyer is obligatory, the contract may be voided by either party by payment of a maximum penalty of five per cent. There are nominal 'calls,' but trading is confessedly rare. The published quotations are made by a committee, the membership of which is changed periodically. That committee is actually a close corporation of the buyers of butter and eggs and the prices were to represent their views as to the rates at which the trade generally should be ready to buy from the farmers and country dealers.

These practices result in deceiving buyers and sellers. The making and publishing of quotations for commodities or securities by groups of men calling themselves an Exchange or by any similar title, whether incorporated or not, should be prohibited by law where such quotations do not fairly and truthfully represent any *bona fide* transactions on such Exchanges. Under present conditions, we are of the opinion that the Mercantile and Metal Exchanges do actual harm to producers and consumers and that their charters should be repealed."

JOHN DOE PROCEEDING BY THE DISTRICT ATTORNEY OF NEW YORK COUNTY

In 1912 the district attorney of New York county filed an information in the nature of a John Doe proceeding entitled "City Magistrate's Court, First Division, The People of the State of New York, plaintiff, against the New York Mercantile Exchange, defendant." In this proceeding an inquiry was made into certain alleged practices of the Exchange before the city magistrate. No determination was made in said proceeding by the magistrate nor did the district attorney take any action other than, as I am informed, to present the evidence to the grand jury. The reason why the district attorney did not take some action is that an agreement or understanding was entered into by him and the members of the Exchange to the effect the Exchange would discontinue certain practices.

Mr. William A. DeFord, assistant district attorney, who had charge of the proceeding, summarized the evidence taken in the proceeding, and among other things reported that the members of the Exchange purchased standard grades

of creamery butter under prior arrangements subject to change upon notice whereby they paid the price fixed by the Exchange through its published quotations on the day of its arrival or at a premium or advance over the price fixed by the Exchange, and that the members of the Exchange sold butter at the price fixed by the Exchange or at a stated advance over such price, and that the Exchange price as published was the basis upon which its members paid for butter and the basis of the price at which they sold the same; that the quotations of prices for butter and eggs issued by the Exchange were not based upon the prices at which sales had been actually made, but were simply arbitrary statements, of the Exchange; that the quotations issued were understood to be quotations of prices, which quotations were issued on the morning of each day before the doing of any business on that day, and were issued as the basis of that day's trading; that the issuance of quotations was the method adopted by the members of the Exchange whereby they fixed prices, "raising and lowering them at their will from day to day in their interests at which they should buy and at which they should sell" and that the quotation committees were a "mechanism established whereby it (the Exchange) fixed the price at which, within the limits of a partial competition, they should buy and sell an article or commodity of common use." (Pp. 47-50. Exhibit 16, pp. 106-109, S. M.)

The specific things which the Exchange agreed to discontinue with the district attorney of New York are set forth in Exhibit 17, read into the record at pages 124-126, S. M. Exhibit 17 is a resolution passed by the executive committee of the Exchange at a special meeting held July 18, 1912, and after a recital of the reasons for such action, as set forth in the various paragraphs of the preamble, it provided as follows:

"RESOLVED: That the Exchange will not at any time, directly or indirectly, by any method whatsoever, make or publish or receive from any person, firm or corporation and publish, either on a blackboard on the floor of the Exchange or otherwise, any prices or quotations of the prices of butter, cheese and eggs in the New York Market; with the exception of listing and recording prices actually received for lots of said commodities at bona fide sales thereof actually made upon the floor of the Exchange, and be further

RESOLVED: That the Exchange will not directly or indirectly, either use or knowingly permit the use by any other person, of its statistics of receipts of butter, cheese and eggs in the New York Market, for the purpose of making and publishing quotations of market value or prices of any of said commodities in a manner contrary to law."

THE URNER-BARRY MECHANISM SUBSTITUTED FOR THE QUOTATIONS OF THE COMMITTEES

As has been seen, the legality of making, posting, publishing and issuing quotations by the quotation committees of the Exchange was twice brought into question, viz., in 1907 by the Martin suit and in 1909 by the Governor's Committee before referred to. Thereafter what is known as the Urner-Barry Mechanism was used for publishing and disseminating information throughout the country as to the daily price of butter and eggs on the New York market. The reason for the existence of a new mechanism of some kind with which to furnish quotations of the markets of eggs and butter is apparent. Inasmuch as the sales of butter and eggs on the floor of the Exchange under

the "Call" were insignificant and as it was impossible for the public to get reliable or any information based upon public sales on the Exchange, it was necessary to have some mechanism or system by which this information was fed to the public, and since the publication and making of quotations by quotation committees was discontinued, the Urner-Barry Company furnished the mechanism by which this information was disseminated. The Urner-Barry Company during all the times mentioned in the petition published a daily market report which was circulated among the dealers and known as the "Producers' Price Current." The evidence shows that one Frank G. Urner was the vice-president of this company and one of its employees and was a member of the Exchange and of its executive committee and also the maker of the quotations on prices on eggs. Mr. Urner made the quotations for the various grades of eggs which has been established by the Exchange, and posted the same on the bulletin board of the Exchange. In getting his information as to the market price of eggs on any particular day he spent from one hour to an hour and a half in the morning interviewing dealers in eggs at their places of business and also upon the floor of the Exchange and from the information so gathered, he formed his conclusions as to what was the market value of eggs on that day, and published them in the Urner-Barry publication.

Mr. William C. Taber was the treasurer of the Urner-Barry Company and in its employ and gathered data and information in the same way relative to the daily market prices of butter. Mr. Taber was also a member of the Mercantile Exchange. He made the butter price quotations published in the Urner-Barry publication.

The quotations published by the Urner-Barry Mechanism are furnished daily and published in thousands of papers throughout the country, which publications are members of the Associated Press. These quotations are furnished by the Urner-Barry Company to the Associated Press daily and sent out to all morning and afternoon papers which are members of the Associated Press. This information is disseminated through the south and through all the central states as far west as Colorado. They therefore become the quotations upon which the producers and consumers of eggs throughout the country are guided. (Testimony of Wilbur Stewart, 629, 636 S. M., Nov. 9, 1914.)

Leaving out of consideration for the moment the question whether the Exchange has an agreement with Urner-Barry people to perform the same services of making and publishing quotations in butter and eggs that the quotation committees of the Exchange had performed, there is no question that the quotations made by the Urner-Barry people followed the grading of eggs and butter made by the Exchange as did the quotation committees. The information obtained by the Urner-Barry Company was the same information obtained by the committees. The quotations were made by the members of the Exchange and after consulting with other members of the Exchange and were reported on the floor of the Exchange at the same hour each day. True the officials of the Exchange of the Urner-Barry Company who were examined by the Attorney-General at the hearing denied there was any understanding between the Exchange and the Urner-Barry Company. But the same work was carried on and the same functions per-

formed as was carried on and performed by the quotation committees, the legality of which has been challenged theretofore, and I therefore think it is a fair inference that there was some kind of an understanding between the Urner-Barry people and the Exchange that the former should carry on the same work that the Exchange had carried on by their quotation committees. Mr. DeFord's report upon this branch of his investigation is as follows:

"The Urner-Barry quotation device was, therefore, simply a price fixing device, or scheme or arrangement, adopted by the Exchange to perform the function, to perform for the benefit of the members of the Exchange, the price fixing service of the official quotations committees, the legality of which had been challenged in a court proceeding and by a legislative committee.

The Urner-Barry quotations were made and published by members of the Exchange upon the floor of the Exchange to fix the price of the commodities in which the members of the Exchange dealt, is open to all the objections of illegality to which the operations of the quotations committees themselves were subjected."

INDICTMENTS OF MEMBERS OF THE EXCHANGE FOR DEFRAUDING THE RAILROAD COMPANIES BY FILING FALSE CLAIMS FOR DAMAGES OF EGGS AND BRIBING THE INSPECTORS OF THE RAILROAD COMPANIES

It was proven in 1912 that the individual members of some five firms, members of the Exchange, were indicted for defrauding the railroads by presenting false claims for the breakage in eggs and collecting damages thereon. It seems that prior to 1909 the railroad companies permitted the commission merchants to receipt for damaged cases of eggs. The damage claims were so exorbitant that the railroads made a rule requiring an inspection of the damaged cases of eggs before they were delivered to the consignee, which was done by a joint inspection by a representative of the railroads and of the consignee. In 1912 or 1913, the Trunk Line Association, which included a number of the railroad companies obtained information to the effect that certain commission houses were paying money to the railroad inspectors to induce them to deliver shipments more expeditiously than to their competitors, and also to induce the inspectors to sign a receipt showing a certain number of broken, cracked or stained eggs without making any examination. This information was reported to the Interstate Commerce Commission. The Interstate Commerce Commission, through Mr. Frank W. Swacker, Special Deputy United States Attorney-General, conducted an investigation with the result that a number of firms and corporations were indicted for making fraudulent claims against the railroad companies for broken eggs, and also for violating certain sections of the Interstate Commerce Act in paying money to inspectors to induce inspectors to discriminate in their favor. All of these firms or individual members thereof and corporations pleaded guilty to the charge of alleged discrimination and each paid a penalty varying from \$2,000 to \$12,000. These indictments were found by a Federal Grand Jury and the cases were disposed of between May 16, 1913, and November of the same year. (See testimony William S. Meeks, pp. 1873, 1959, 2007, 2023, Vol. III, S. M.; also testimony of William Mann, pp. 1976, 2017, Vol. III, S. M.; see p. "G," C. E. Waits.)

The testimony is fully set forth and read into the record at the pages above quoted. The minutes of the executive committee show the official action taken

by the Exchange regarding this matter. The Exchange suspended all the individuals and corporations who pleaded guilty, as above set forth, although other members of some of the firms were permitted to continue members of the Exchange and to transact business in the Exchange.

The criminal prosecution by the Federal authorities evidently produced an immediate effect upon the number and amount of claims filed against the railroads and the amount paid by the railroads for damaged eggs. The amount of claims filed from February 13, 1912, to January 1, 1913, were 60,451 in number; \$715,113.00 in amount, and the amount paid by the railroads in settlement was \$665,552.00. From February 13, 1913, to January 1, 1914, claims were 43,532 in number, \$412,094.00 in amount, and \$191,562.00 paid for damages. (Table of C. E. Waite, page C. 6.)

CONTRACT OF HENNENBERGER & HEROLD WITH THE UNITED STATES NAVY AT BROOKLYN

Under the rules of the Exchange regular inspectors of butter and eggs were employed at an annual salary. In the early part of the year 1914, one Joseph H. Barrett was the inspector of the Exchange for butter.

On or about May 23, 1914, Hennenberger & Herold, members of the Exchange were low bidders for butter under specifications advertised for by the navy department of the Brooklyn Navy Yard, Brooklyn.

The specifications provided for "creamery extras" to be inspected either by a representative of the agricultural department of the United States Government, (Mr. Fryhofer), or by the official inspector of the Exchange. This particular quantity of butter was inspected by Mr. Barrett. His examination showed the butter to be of "creamery extras" and he so stamped the tubs. When the butter was delivered it was found to be of an inferior quality. The authorities at the Brooklyn Navy Yard had another reinspection of the butter and found that it was far below the grade certified to by the inspector of the Exchange. Mr. F. G. Henry, superintendent of the Exchange, testified upon the hearing before the Exchange:

"At the request of the President, I went to the Brooklyn Navy Yard on May 20. I was directed to look at the stamps on the butter delivered by Hennenberger & Herold to the navy yard, and which was then loaded on the supply ship "Celtic." I first called upon Paymaster Sanford and he put me in charge of the paymaster on board of the ship heretofore mentioned. I was taken into one part of the ship and found 250 tubs in the refrigerator room. I looked at fully 100 tubs, and found every tub stamped. I could not look at the remaining lots as they were piled up to such an extent, that they were not easily examined. The paymaster on the ship, however, assured me that every tub had been stamped and this information was also confirmed by Paymaster Sanford. They stated that they would not have accepted the butter had each tub not been stamped. I found in my examination of the 100 tubs, that some lots which were stamped EXTRAS on the tops and sides were very legible. The others were stamped so imperfectly that it was impossible to see what the brand actually did show at time it was impressed. I noticed in many lots where the grade had been inserted, it had been so blurred as to be illegible. I noticed butter dated May 15 and May 21, the largest number being the latter date. The records of the Exchange show that all this butter dated May 15, were stamped extras, and conformed to the books of the Exchange. I returned to the Exchange, and made this report to the President."

Q. Is it a fact, as I gather from this evidence, that there were 400 tubs of butter which had the stamp of the Mercantile Exchange, and you have no record of inspection?

A. That is about the truth.

Q. And have you any idea of how it got the stamp of the Mercantile Exchange?

A. We were never able to find out.

Q. Did the New York Mercantile Exchange ever find out?

A. No, we could not find out."

An investigation disclosed that it was impossible to tell who had placed the official stamp of the Exchange on the various tubs of butter and further that the stamps had been erased or blurred so that it was difficult to determine what grade had been certified to.

Upon ascertaining these facts, the Exchange made an investigation of the whole matter with the result that the members of Hennenberger & Herold were suspended for one year (p. 204), and Joseph H. Barrett was discharged from his position as official inspector (p. 206). Within a year's time the Exchange permitted Barrett to be duly elected member of the Exchange with all the rights and privileges of membership. (Pp. 196-207, S. M.; see record of trial of Hennenberger & Herold read into the record, pp. 225-295 S. M.)

The butter so purchased was to go to the sailors at Vera Cruz. Only a small percentage of butter was "creamery extras," according to Mr. Fryhofer.

PROCEEDING BY THE UNITED STATES GOVERNMENT AGAINST THE CHICAGO BUTTER AND EGG BOARD

There was some evidence tending to show that in 1912 or 1913, the United States Government instituted criminal proceedings against the Chicago Butter and Egg Board, the result of which was that the Chicago Board was compelled to discontinue the market and the making of prices through their committees and restrained from publishing quotations of prices as it had theretofore done. (Pp. 175-176 S. M.)

TRADING UNDER THE "CALL"

That the trading under the "Call" does not have any true bearing on the fixing of prices, is indicated briefly in the record of transactions of such sales for the years of 1912, 1913, 1914:

<i>Eggs</i>		
	1912	
Number of cases of eggs received in New York City	Sales under Call Cases	Percentage
4,723,558	113,307	2.40
4,666,117	104,506	2.24
4,148,412	58,125	1.40
<i>Butter</i>		
	1912	
Number of tubs of butter received in New York City	Sales under Call Tubs	Percentage
2,434,069	28,001	1.15
2,516,485	17,303	.69
2,025,902	17,043	.84

There was no evidence offered upon the question of whether the packing houses and cold storage warehouse concerns combined with the members of the Exchange or other large dealers for the purpose of advancing or reducing the market price of eggs. There was no evidence offered upon the question of whether the storing of eggs in cold storage warehouses or by the packing houses outside the State of New York resulted in producing an inferior quality of eggs upon the New York market.

It is only fair to state there was no evidence given that would warrant the conclusion that any improper or fraudulent dealings with state institutions could be charged up to the Exchange as an organization. There is some evidence that members of the Exchange dealt extensively with the State and that disputes arose from time to time. Perhaps some of these were fraudulent, but in my judgment they should not be charged up against the Exchange.

OTHER REPORTS IN THIS PROCEEDING MADE TO THE ATTORNEY-GENERAL

On March 15, 1915, Mr. C. E. Waite made a report to you upon this investigation. This report deals with facts already proved in the proceeding and also things that in his judgment could be proved by evidence at hand. I have deemed it advisable to incorporate his report as a part of mine so that you may have it embodied in one report for reference. His report is as follows:

IN THE MATTER

of

The Petition of the Attorney-General of the State of New York, for an order directing certain persons to appear before a Referee for examination pursuant to chapter 25 of the Laws of 1909, as amended, being an Act "Relating to General Business" constituting chapter 25 of the Consolidated Laws, and entitled "General Business Law," in effect February 17, 1909, and particularly article 22 of said chapter.

Hon. E. E. WOODBURY, *Attorney-General of the State of New York:*

Sir.—Under the order of the Supreme Court, dated October 9, 1914, appointing Hon. Edward R. O'Malley, Referee to take testimony in the above matter, commonly referred to as the "Butter and Egg Investigation," I beg to report as follows:

In General

First: Beginning with October 22, 1914, down to December 22, 1914, there have been hearings on eighteen days, fifty-seven witnesses have testified and 2,030 pages of testimony spread on the record.

Second: The facts alleged in the petition, in so far as they refer to numbers 1, 2, 3, 4, 5, 6, 7, 8 and 13 (folios 9 to 104 and folio 1230) have been proved, partly by the testimony of witnesses thus far examined, partly by

evidence in the possession of the investigators, and prior to April, 1912, by the evidence brought out in the action entitled "The People of the State of New York against New York Mercantile Exchange," tried in the City Magistrate's Court, First Division.

Third: The facts alleged in the petition, numbers 9, 10, 11 and 12 (folios 104 to 123) have not been proved, but accumulated evidence in the possession of the investigators indicates that actual proof can be obtained.

Fourth: The facts alleged in number 14 (folio 124) of the petition have not been proved by the discovery of an actual contract or agreement in writing or of any arrangement or combination of record, specifically bearing out the allegation that competition in this State is restrained and prevented and that a monopoly exists, but that the facts as alleged are true and can be proven is set out in the following:

Statements of Fact

I.

The New York Mercantile Exchange is an institution maintained by wholesale dealers in butter, eggs and cheese in the city of New York.

It has four hundred members and is governed by a president, four vice-presidents, a treasurer and a secretary, and these seven officers, in addition to eight other members, constitute the executive committee.

The executive committee, inclusive of the officers of the Exchange, are elected annually, all other committees being appointed by the executive committee.

The trade committees (which are in reality governing committees) are the butter committee, the egg committee and the cheese committee, consisting of seven members each.

The standing committees are as follows: Finance, three members; floor, three members; law, three members; rooms, property and fixtures, three members; admission, eight members; complaint, three members; information and statistics, three members; trade, five members; arbitration, twelve members; export, three members.

The governing committees are, therefore, the executive committee (including the seven officers) numbering fifteen and the trade committee numbering twenty-one, or a total of thirty-six members who control the affairs of the institution. The standing committees number forty-six, making a total membership of all committees eighty-two.

II

In the various phases developed in the course of this investigation, and in the searching analysis of the transactions as shown in the records of the Exchange itself, it became apparent almost from the first that a dominating faction or clique existed, and as the control of the operations of the Exchange was centered in the governing committees, it was important that the makeup of these committees should be closely dissected.

It appeared to me that individuals, treated as committee units, by names, would not produce conclusive results, and I have therefore, in all statements or data, where the action of a committee was involved, shown the makeup of

the committee by giving the name of the firm with whom the member of the committee was connected.

From 1907 down to and including 1915 (a period of nine years) there were 1,395 individual services on various committees. In 1907-1908 and to August, 1909, the quotation committees were in existence, which accounted for 551 services on the quotation committees out of the total of 840 services on all committees by all members for the two years and seven months.

During the whole period of nine years, however, twenty-two firms, represented by forty-eight individuals, served as follows:

	Total all members	Total 48 members 22 firms	Per cent of service
Governing Committees			
Holding Office	63	47	74½%
Executive Committee	135	85	63%
Butter Quotation Committee.....	277	121	43½%
Butter Quotation Committee.....	63	41	65%
Egg Quotation Committee.....	274	121	44%
Egg Quotation Committee.....	63	40	63%
Cheese Quotation Committee.....	63	18	29%
	938	473	50%
Standing Committees	457	293	64%
	1,395	766	55%

The number of services by firms stood at seventeen for the lowest and fifty-nine for the highest. The service by individuals ran from one for the lowest to fifty for the highest.

(See Section D.)

The makeup of all committee from 1901 to 1915 is spread on the record Volume 4, pages 2052 to 2077.

The fact that certain firms are represented year after year, and that certain individuals, members of, employed by, or closely connected with these firms, are elected as officers and members of the executive committee year after year, indicates something approaching control.

The fact that all members of the trade and standing committees are appointed by the executive committees gives a power to the fifteen members serving on said committee which emphasizes this control, but when we find that during the last nine years, out of the twenty-two firms eighteen members served as officers forty-seven times out of a possible sixty-three periods, and twenty-nine members served on the executive committee eighty-four times out of a possible 135 periods, the control becomes, if anything, more pronounced.

While there is at present no absolute proof, the indications are that certain firms doing a very large business, (in one instance, large contractors to the State, namely, Droste & Snyder) and who are rarely represented on governing committees, or who do little or no trading under the "Call," are in fact, represented by other interests on these committees and trades under the "Call" are transacted for them by their nominees.

III

My reason for classing the butter committee and the egg committee as governing committees is as follows:

Almost without exception any action by either one of these committees, which by the rules of the Exchange is referred to the executive committee, is dealt with by the executive committee in conformity with the recommendations of the committee in question.

The basis of all trading prices is dependent on the scoring of butter and the grading of eggs, and the fixing or the alteration in the scoring of butter by the butter committee becomes official and in like manner, the fixing or the alteration in the grading of eggs by the eggs committee becomes official, and such scoring or grading is accepted by shippers and the trade as regulating the quality of goods required, not only in the New York market, but wherever the quotations as published in the Urner-Barry Price Current are accepted as fixing prices.

Since the quotations committees were abolished in August, 1909, the butter committee has been given discretionary power to change the range of scoring for creamery butter, and the egg committee, in like manner, has discretionary power to change the percentage of eggs, of the quality necessary to meet the requirements of the different grades of those classified as "fresh gathered," without the approval of such action by the executive committee.

IV

Official inspectors are appointed by the butter committee and by the egg committee subject to the approval of the executive committee, and these inspectors, as servants of the Exchange, not only owe their appointment but their retention, or any advancement by way of remuneration, to the members of the committee or to the influence of allied interests.

It is the duty of these inspectors to inspect, when called upon to do so, either at the receiver's store, or at a cold storage warehouse, or such other place as may be named, such butter as may require inspection to determine the score. (Such scoring indirectly fixing the price).

Ordinarily, or when any dispute arises between a receiver and a shipper, or if evidence of quality is necessary and a certificate of inspection is required, a certain number of tubs, generally ten per cent, is selected from a consignment and duly inspected, and from the data furnished by the inspector the superintendent of the Mercantile Exchange issues the official certificate.

The United States Government and the State of New York requires that all butter purchased subject to the inspection by the Mercantile Exchange shall have the tubs stamped by the inspector, showing the quality or grade purchased.

The procedure set out above is carried out in the essential details in the grading of eggs.

V

In the Martin litigation it was proven that "the butter quotation committee willfully, deliberately, fraudulently, dishonestly, maliciously and systematically issued and published daily quotations of the values in the New York wholesale market of the different grades of butter, which quotations

were false, fraudulent and not representative of the selling values of the same commodities obtainable from wholesale transactions at first hands."

While the quotation committee no longer exists, in all other respects the machinery is in order for manipulation. The butter committee and the egg committee fixes or alters the score or grade from time to time, or should occasion demand, the butter committee suspends the scoring altogether.

If the judgment of inspectors can be influenced, so that the scoring or grading can be altered or doctored to suit individual requirements, the manipulation of the "Call" and the manipulation of quotations is necessary only to produce conditions that are closely analogous to those existing before the quotation committee was discontinued under an injunction of the Supreme Court.

There is proof that these conditions do, in fact, exist.

VI

Both F. G. Urner and William C. Taber, officers of the Urner-Barry Co., and members of the Mercantile Exchange, have for years acted as the market reporters for eggs and butter, respectively, and their reports are published in the Producers' Price Current.

Prior to the discontinuance of the quotation committee, these gentlemen served on them and entered fully into all discussions as to fixing prices, and without doubt, largely influenced the prices ultimately arrived at.

Since the discontinuance of the quotation committees, instead of discussing conditions and interchanging opinions in committee, where, at any rate, decision as to prices arrived at were made official as the action of the committee as a whole, Messrs. Urner and Taber now gather such information as they care to seek from members on the floor of the Exchange, or in places of business, and gave at all times due consideration to the "bids and offerings" and sales under the "Call."

The effect, therefore has been that while the prices as made by Urner and Taber are not the official quotations of the Exchange, nevertheless they are accepted by the members as such and on publication in the Producers' Price Current, and, by arrangement with the Associated Press, published in upwards of one thousand newspapers in the United States; they are looked upon by shippers all over the country as the market price in New York on which settlements will be made.

There is proof that the Urner-Barry mechanism is simply a price-fixing device adopted by the Exchange to perform for the benefit of its members the same service as formerly rendered by the official quotation committee.

Conclusion

In my opinion, there is (having regard to the testimony already given, and the further proof which is ready to offer in evidence) a monopoly in this State in the sale of butter and eggs, by which the free pursuit in this State of the lawful business, trade, and occupation of selling and dealing in eggs is restricted and prevented.

Respectfully submitted.

Under date of March 2, 1915, Messrs. M. & L. W. Scudder, certified accountants, who were employed by the Attorney-General in this investigation also made a report to you covering not only the testimony offered before me, but

covering the investigation which the accountants conducted outside of the hearings. I have read this report carefully and so far as it deals with matters upon which evidence was introduced before me, it is in the main correct. In so far as it discusses information and knowledge obtained outside of the hearings by the accountants, I would not care to adopt the conclusions of the accountants as set forth therein. Their report is as follows: (Insert Accountants' Report No. 15, if it is the wish of the Attorney-General.)

From all the evidence and information adduced and brought out upon the hearings, the following facts have been established:

1. That the making, posting and publication of the quotations of the daily prices or values of butter and eggs as carried on by the Exchange since 1903 and as carried on through the Urner-Barry mechanism have been manipulated and misrepresented in the interests of a few members of the Exchange who were very large dealers in those commodities and that such manipulations and misrepresentations have been injurious not only to the producers and consumers of eggs and butter, but also the independent dealers and many of the smaller dealers who are members of the Exchange.

2. That one of the important factors or agencies by which such misrepresentation and manipulation in fixing the prices of those products is accomplished is the practice of the Exchange in establishing so many complex grades in the classification of the grades of eggs and in the classification of the grades of butter and in the further practices upon the part of the Exchange through its committees in making changes in those classifications and in the scoring of butter from time to time, thereby rendering it impossible at all times for shippers to know just what classification or grades a particular shipment of either commodity would come under.

3. That notwithstanding the object of said Exchange as quoted in section 1 of its by-laws is, "inculcate just and equitable principles of trade and to reform all abuses in general business," it has proven that there is conspicuously absent any greater activity upon the part of the Exchange in punishing its members who have been convicted of inequitable and unjust practices in trade as illustrated by the penalties imposed by the Exchange upon its members who had been convicted of dealing falsely and fraudulently with the United States Government and for filing false claims for damages to eggs in transit with the railroads and as further illustrated in the punishment imposed upon Joseph H. Barrett, one of the official butter inspectors, when it was proven that he had been found guilty of a conspiracy to defraud the United States Government in inspecting the quality of butter sold to the latter.

4. That the sales of butter and eggs under the "Call" in the Exchange are infinitesimal as compared with the wholesale transactions in butter and eggs in New York city; that the sales under the "Call" each day are so limited that they cannot be a basis for the quotations published or a basis of any values whatever as a very large percentage of said sales do not represent actual transactions.

5. That the control of the butter and egg market, as above indicated by the Exchange, is really in the hands of a few of the largest members of the Exchange. As an example—the total business in eggs in New York city for the fiscal year ending April 30, 1914, was estimated by the accountants at

\$34,614,140.88 and it is shown by them that twenty receivers and packers handled total sales of \$17,099,850.78 or 49.2 per cent of the year's transactions in eggs. During the same period of time the total business in butter in the city of New York is estimated by the accountants as \$48,706,982.40, and that the sales of twenty receivers and packers amounted to \$20,137,709.75 or 41.3 per cent of the total transactions for the year. (Scudder's Report, No. 8.)

This is the fourth time the practices of the Mercantile Exchange of New York city have been investigated. The main point investigated each time was whether or not the market prices of eggs and butter, as published by the Exchange or by any other mechanism based upon the workings of the Exchange were honest quotations representing the actual sales and the conditions of the market. In each instance the result has been the same, viz., that these market quotations were not honest or representative of the actual conditions of the market. If a remedy does not already exist by which these practices may be either regulated or prohibited, then it would seem to be a proper matter to be submitted to the Legislature for action.

Under the law the testimony taken on the hearings, after having been signed by the witnesses, must be filed in the office of the clerk of the county of New York. Your department has a copy of the testimony and I will return the exhibits to your office, and will immediately file the original testimony in the office of the clerk of the county of New York.

All of which is respectfully submitted.

(Signed) EDWARD R. O'MALLEY,
Referee.

[illegible]

JOINT REPORT ON FOODS AND MARKETS

OF

GOVERNOR WHITMAN'S MARKET COMMISSION, MAYOR MITCHEL'S
FOOD SUPPLY COMMITTEE AND THE WICKS LEGISLATIVE
COMMITTEE.

SIGNED ON BEHALF OF EXECUTIVE COMMITTEE

*Governor Whitman's
Market
Commission*

GEORGE W. PERKINS,
Chairman

CHARLES W. WICKS,
State Senator

S. J. LOWELL,
Master, New York
State Grange

CLIFFORD S. SIMS,
Vice-President, D. &
H. R. R. Co.

GEORGE W. WARD,
Counsel

*Mayor Mitchel's
Food Supply
Committee*

GEORGE W. PERKINS,¹¹
Chairman

L. J. LIPPMANN

CARL A. KOELSCH

JOHN BUCKLE

GEORGE DRESSLER

CYRUS C. MILLER

W. C. MUSCHENHEIM

M. MAURICE ECKSTEIN

WM. H. CHILDS

*Wicks
Legislative
Committee*

CHARLES W. WICKS,
Chairman

N. M. MARSHALL

M. S. HALLIDAY

D. J. CARROLL

E. H. MACHOLD

W. W. LAW, JR.

H. L. GRANT

D. P. WITTER

FRANK J. TAYLOR

GEORGE W. WARD,
Counsel

JOINT REPORT OF THE

GOVERNOR AND
FOUR
COMMITTEE

SELECTED

GOVERNOR WILLIAM
MORRIS
COMMISSIONER
GEORGE W. FROST
CHARLES W. HARRIS
S. J. LOWELL
MARTIN
STATE
CLIFFORD S. FROST
H. R. FROST
GEORGE H. FROST

JOINT REPORT ON FOODS AND MARKETS

December 28, 1916.

HON. CHARLES S. WHITMAN, *Governor of the State of New York,*
Albany, New York:

Dear Governor Whitman.—Your Committee on Market Conditions in this State begs leave to report as follows:

When it took up this work it found in existence in New York city a committee known as Mayor Mitchel's Food Supply Committee, which had been conducting an investigation of this subject for more than two years; also a committee created by the Legislature last year known as the Wicks Committee, which has been pursuing an investigation into the question of dairy products in this State. Believing that these two committees had done valuable work, your committee immediately sought their co-operation, and this has been given in the most cordial possible spirit.

As the members of the three committees have come to the same conclusion regarding the causes for existing conditions and the remedies that should be applied, we are pleased to be able to transmit herewith a report which is jointly submitted by the members of these three organizations.

If you approve of our recommendations and desire that a bill be prepared substantially along the lines indicated and introduced into the Legislature, we would respectfully suggest that such bill be introduced by the Wicks Committee, which includes several members of the Legislature and which has performed much efficient work.

Respectfully yours,

GEORGE W. PERKINS, Chairman.

CHARLES W. WICKS, State Senator.

S. J. LOWELL, Master, New York
 State Grange.

CLIFFORD S. SIMS, Vice-President,
 D. & H. Railroad Co.

GEORGE W. WARD, Counsel.

JOINT REPORT ON FOODS AND MARKETS

HON. CHARLES S. WHITMAN, *Governor of the State of New York, Albany, N. Y.:*

Dear Sir.—We have the honor to submit the following report on marketing conditions and the high cost of foodstuffs in this State.

There are numerous causes for existing conditions, the principal ones, in our judgment, being as follows:

I

AND THIS IS FUNDAMENTAL

The lack of a comprehensive Market Department in the State and the absence of any centralized market whatsoever in New York city and most of the other centers of population throughout the State.

Only within the past three years has the State of New York had any market department at all, and the present one has insufficient power and scope, and scant financial support.

In New York city such few market functions as exist are distributed among a number of the city departments, *the result being that what is everybody's business is nobody's business.*

Because of the lack of proper market departments, the people's interests in this all-important matter have been left almost wholly in private hands.

This is in striking contrast to the State's policy in other important activities where the public's welfare is concerned.

For example, we have in this State a Department of Health, a Department of Education and a Department of Highways—each with broad and comprehensive powers.

We also have two Public Service Commissions to look after the people's interests in the matter of transportation, *yet it is estimated that but 10 per cent of the average man's income goes for transportation, while upwards of 40 per cent of his income goes for food.*

Every once in a while we have a sporadic inquiry into the question of our marketing conditions or food supply. There is a lot of talk and much publicity, but the attempt eventually fades away and amounts to nothing, largely because there is no official department empowered to inform itself fully, eradicate any evils that exist, prevent their recurrence, and provide better methods.

State Should Safeguard People's Food Supply

If experience has shown that the public's interests in the matter of health, education and transportation need to be safeguarded by the State, through supervision and regulation, does it not follow that in the all-important matter of their food supply the people's interests should also be safeguarded by the State in a similar manner?

In our judgment the most vital necessity is the immediate creation in this State of a Market Department of proper size, scope and power, and the immediate creation in our cities of market departments of a similar character.

Such departments could do much to modernize antiquated methods and see that the interests of the producer and consumer were safeguarded and protected from private greed and imposition, in much the same way that the Public Service Commissions safeguard the public's transportation interests.

It could also have additional valuable functions such as are referred to in other parts of this report.

II

EXPORTS HAVE INCREASED PRICES

While the cost of food has steadily increased during recent years, in our judgment the recent sharp rise in the cost of food products is attributable in large measure to the European war.

The vast quantities of foodstuffs shipped to Europe have materially reduced our supply and this of course has caused increase in the price.

For example:

In the first nine months of 1914 the United States exported breadstuffs to the value of..	\$172,000,000
In the first nine months of 1916 the United States exported breadstuffs to the value of..	337,000,000
In the first nine months of 1914 the United States exported <i>dairy products, such as butter, cheese, condensed milk and eggs</i> , to the value of	5,800,000
In the first nine months of 1916 these exports amounted to over.....	29,000,000
In the first nine months of 1914 the United States exported <i>meat products</i> to the amount of	97,000,000
In the first nine months of 1916 these exports amounted to	201,000,000

While our exports have so largely increased, our production has decreased.

	Bushels
In the year 1914 the production of potatoes in the United States was.....	410,000,000
For the year 1916 it was.....	300,000,000
Yet in 1914 the United States exported but..	1,700,000
While this year, to October 1st, it exported...	2,700,000

The average yearly production of wheat from 1910 to 1914 was 728,000,000 bushels. This year the production was only 607,000,000 bushels. A somewhat similar condition exists in our other crops. With an extraordinarily heavy exportation and a considerably decreased production, it was inevitable that prices would advance.

III

IGNORANCE ON THE ENTIRE QUESTION OF FOODSTUFFS

In New York city, for instance, a great number of girls leave the public schools around the age of fourteen and fifteen. They immediately go into stores, shops or factories. In a few years they marry and start housekeeping, equipped with insufficient

knowledge of how to buy food, how to care for it and how to prepare it.

These housekeepers know little or nothing of the value of foods from the nutriment standpoint. The result is a great waste in every direction.

Two years ago Mayor Mitchel's Committee on Food Supply instituted an educational campaign in New York city. It prepared and distributed various circulars touching on the most rudimentary questions regarding food and its preparation. These circulars were sent to the public schools and, after a brief explanation by the teachers, they were distributed to the children, who took them home.

This campaign was continued for a number of weeks and about twelve or fifteen million circulars were distributed.

The response from the housekeepers was prompt and significant, for one day's mail alone aggregated over 2,600 communications, all clearly showing the crying need for education of the most practical sort on this most important question.

We strongly recommend the immediate adoption of this system by the State, and its extension and application throughout the State.

IV

TRANSPORTATION AND DISTRIBUTION

The facilities of the State in this respect need immediate improvement and development. The State now has much the same system and the same methods that were in vogue a number of years ago when the population of its cities was much smaller.

During the last ten years millions and millions of dollars have been spent in New York city to enlarge, improve and more conveniently locate railroad terminals and facilities of all kinds for transporting people. Great and expensive terminal stations have been built, subways and tunnels have been constructed, and a vast amount of time, thought and money have been spent on the transportation of people.

In recent years over \$150,000,000 has been spent to increase and improve New York city's water supply; but practically no time,

thought or money has been spent to enlarge and improve our facilities for handling food supplies.

New York city in recent years worked out and perfected a plan to widen Fifth avenue, and much money was spent to gain a few feet more of space in a street largely used for pleasure vehicles; while necessary improvements in West street, for example, where a vast amount of freight coming into and going out of New York city is handled, have not been made, and the congestion has now reached a point where the delays are so great as to add materially to the cost of doing business.

Inadequate Terminals Make for High Costs

It has been estimated that it costs very much more to transport a pound of food from the point where it lands on reaching New York to the home of the consumer than it does to bring it by rail from Buffalo to New York.

For example:

The present inadequate track, yard and terminal facilities of the New York Central Railroad are a serious handicap to the producer in the marketing of food products and a very large factor in the cost of distribution of these products in New York city.

Interruption of traffic at and north of Spuyten Duyvil and the necessary limitation of operation on surface of streets and avenues often result in holding up the delivery of a thousand or more cars at a time north of Spuyten Duyvil. The yards at 130th street, 60th street and 30th street are so inadequate as often to cause 150 to 200 cars of produce at a time to be held on back trains, awaiting placement on team track. Cars loaded with produce are sometimes detained in these yards on an average of five days beyond the free time of two days.

The consequence is a large additional expense, a shortage of produce cars and the issuing of embargoes, with such demoralization that farmers often hesitate to ship to New York city and endeavor to seek markets outside the State.

Negotiations are now under way between New York city and the railroad with a view to correcting this unsatisfactory

condition, and it is to be hoped that a speedy and satisfactory understanding can be arrived at between the city and the railroad that will result in bringing about the much needed improvements.

Similar conditions exist with practically all the transportation companies and a general plan of co-ordination between them should, as far as possible, be worked out.

The improvement and enlargement of existing terminal facilities and the addition, where necessary, of further terminal market facilities, at points convenient for distribution, would reduce the cost of handling foodstuffs.

The present methods of food distribution in vogue in the cities of our State, especially New York city, are very costly and, in our judgment, could be greatly improved and the cost reduced if centralized market departments were given sufficient power to modernize existing methods.

Improved terminal facilities would not only reduce the ultimate cost of food to the consumer but would permit dealers to do business more economically and would provide them with facilities for doing a much larger business.

A recent investigation showed that in one block in New York city twenty wagons called in the morning for grocery orders and called again in the afternoon to make deliveries.

The waste through duplicate service and the congestion in our streets because of duplicate service is very great. We believe it is possible to devise a system by which a large amount of this waste could be eliminated. Certainly an attempt in this direction should be made.

V

PUBLIC MARKETS

Much has been said of the need for public markets and the claim made that the establishment of such would reduce the cost of food to consumer. This is a question that should be studied with the utmost care before any large amount of money is invested in such projects.

Many consumers in a city like New York have the idea that if public retail markets were established where farmers could drive in and offer their produce for sale direct to the consumer it would be to the advantage of both the farmer and the consumer.

A careful investigation shows that if all the tillable land available for farming purposes, located near enough to New York to be reached by the farmer with his vehicle, were intensively cultivated, it would produce, under the most favorable conditions, less than 5 per cent of the entire amount of food-stuffs consumed in New York city.

A careful investigation also shows that city people demand service; that a vast amount of the food consumed in a city is ordered by telephone and delivery required at all hours of the day.

We believe, therefore, that before any experiment in public retail markets is undertaken on a large scale at the public expense, an earnest, intelligent attempt should be made to improve our terminal facilities so that producers from up-State and other parts of the country can get their food into New York city and get it delivered more promptly and economically.

In this connection terminal wholesale markets would help materially.

New York State is a large importer of food.

Our cities bring food from nearly all the other States and the world at large; they bring chickens from Texas, butter from California and eggs from China.

Whatever may be the advantage of public markets, they could not, if established, materially reduce the cost of food *without improved transportation and terminal facilities.*

These, then, are among the first prime requisites, whatever the ultimate method of serving the public may be.

VI

DIFFICULTIES WHICH BESET THE FARMER

The farmers of this State have many just causes for complaint. They are beset with innumerable difficulties in getting their produce to market in such a way as to receive proper compensation for it.

A vast amount of perfectly good food goes to waste in this State every year because the producer cannot realize enough for it to pay for sending it to market.

In our judgment, this is largely because the State is not equipped as it should be to render assistance in the way of information as to markets and protection in marketing. A broader system of distribution would enable the farmer to market the product that now goes to waste.

What a City Market Department Could Do

There are undoubtedly many producers up-State who have had the experience of sending produce to New York city only to be informed that because of a glutted market, poor condition on arrival, or for some other reason, it sold for barely enough to pay the charges for getting it there.

The City Market Department should be so equipped that, when requested, perishable shipments would be inspected promptly and a certificate issued to the consignor, testifying to the exact condition of the shipment. And it might be advisable in working out this plan to give such a city market department power to place the shipment in cold storage or to sell it at public auction.

The farmer finds that many tolls are taken from him while his produce is reaching the consumer and that no facilities are furnished him by the State to insure him a more economical handling and distribution of his products.

City People Think Farmer is Making Large Profits

The high price of foodstuffs has made the city people feel that the farmer must be making a large profit, but this has not been the case. On the other hand, the farmers feel that the consumers are engaged in an attempt to force down the cost of living at the

expense of the producer. They feel that if this effort continues it will surely be injurious to both the producer and the consumer.

Constantly increasing wages to the laboring men in the cities are causing young men to leave the farms to seek more lucrative positions in the city.

The present shortage of labor on the farms, due to the high price paid to labor in the factories, has created a serious situation for the farmer. A settled feeling is coming over the boys and young men who are growing up on the farms that the State and the cities either do not intend or are powerless to help or protect them in obtaining proper markets and fair prices for farm products. They see very high retail prices in the city for products for which they obtain very low prices. They see a constantly growing agitation in the city to drive down the price of these same products.

All this causes them to shrink from taking up farming as their life work. This is a most serious situation which only the State can grapple with and correct.

In addition to this the farmer has other hardships. This spring in our State the rainfall was very excessive, with a low temperature. Then came a protracted drought, coupled with extreme heat. Under these conditions full crops did not develop and many producers who, in a normal season, were sellers became buyers.

Exodus from Farms a Dangerous Tendency

The difficulties of farm life in New York State require broad study and co-operative effort on the part of the State and the city. If this is not given, and given speedily, the exodus from the farms to the cities, which has never been so great as during the past year, will become a serious matter.

It is all-important that the State do all it properly can to arrest the tide which is now flowing toward the cities in ever-increasing numbers, and to induce men of ability to seek rural life under conditions which will insure a fair remuneration for their efforts.

Profits for Farmers Are Essential If Men Are to be Kept on Farms

We must recognize that no satisfactory system of feeding our cities can prevail unless the farms are successful, and that it takes as much brains, hard work and capital to pursue farming successfully as any other calling.

The period of land exploitation in this country has passed. No large bodies of new fertile lands remain to be taken up. From now on our food supply must come by the much more laborious and expensive process of refinement of methods and through bringing areas of poorer land into cultivation.

This means a more efficient use of land through improved crop practices, such as better soil handling and more approved cropping methods; through the more careful selection and adaptation of crops to be grown and the breeding of new and more fruitful varieties; through a more productive animal industry; through the redemption of waste land and water areas.

To this end every resource should be employed by the State to increase the farmer's efficiency through increased intelligence concerning his profession.

It is comparatively easy to raise crops on virgin soil, but it is quite another question to raise them on impoverished or less fertile soil. In the future we will have to apply a higher intelligence, a greater skill and more scientific methods in our agricultural endeavors.

This is the problem that Europe has had to face for a long time, and she has made great strides in the direction of solving it. We can undoubtedly learn much from her accomplishments.

State Agencies for Agricultural Education a Prime Requisite

State agencies for agricultural education and research are a prime requisite in this connection. The State should lose no time in extending the work already under way at its various agricultural colleges.

We recommend that these institutions be instructed to submit plans and estimates as to what will be required to extend their

facilities in the way of additional buildings and equipment and the securing of a larger staff. Other countries are far ahead of us in this respect.

For instance, during the last five years the little country of Norway, with a cattle population of 1,100,000 expended \$650,000 for a new veterinary college and equipment; while New York State, with a cattle population of 2,500,000, has expended less than \$400,000 on its veterinary college and equipment during the last twenty years. Belgium recently rebuilt her college at a cost of \$1,000,000; Holland has a college that cost nearly \$1,000,000 and Germany's many activities in this direction are well known.

The value of the live stock of this State, as shown by the United States census of 1910, was \$246,000,000, with an annual loss from disease of about \$25,000,000. With a veterinary service developed to the degree of efficiency that has been attained in European countries this loss could undoubtedly be reduced at least 50 per cent.

Money Needed for the Study of Animal Diseases

The State should also appropriate more money, through its veterinary college, for the study of the causes and prevention of animal diseases and for the better preparation of veterinarians who are to become the advisers of live stock owners and through whose knowledge and advice the startling inroads of animal diseases upon the production of meat and dairy products can be prevented, and the development, upon a sound basis, of the stock-raising industry of the State can be promoted.

In 1915 the United States Department of Agriculture gave the total value of New York State live stock as \$236,000,000, a decrease of nearly \$10,000,000 in five years. The only way to correct this situation is through practical educational methods and State bureaus that will ascertain the most modern methods in vogue in other parts of the world.

Your committee does not believe that the State appropriates enough money or employs enough men of sufficient talent to assist

the farming community in the prosecution of scientific work for the further development of the farms of the State.

Now that the Western lands of our country have nearly all been taken up, we believe the time is ripe for this State to render all the aid it possibly can and offer all the inducement it possibly can to people who will engage in farming on either a small or large scale in this State. We believe that no better investment could be made on behalf of the people than appropriations by the Legislature along these lines. . Good roads are all-important; canals are all-important; but the most important thing that could be hauled over these good roads and on these canals is produce from the farms.

VII

THE IMPORTANCE OF INTERSTATE RELATIONS ON MARKET QUESTIONS

Interstate relations on market questions are of more importance to the State of New York than any other State because we import more foodstuffs than any other State. At present there is no department charged with the responsibility of studying this question, assisting our merchants, promoting outside markets and collateral work. We believe this matter should no longer be neglected but pursued vigorously.

REMEDIES

STATE

Department of Markets

The Committee recommends that a broadened State Department of Markets be established.

The head of this department should be a single Commissioner appointed by the Governor and the department should be equipped with suitable facilities, among other things:

1. To study and analyze the sources and methods of handling the food supply of this State.
2. To keep informed of and make public the amount of foodstuffs available for the people of this State, and the reasonable costs of production thereof.

3. To ascertain and make known to the people of the State the economic and nutriment value of various foods, to inform the people as to the sources of supply, and to provide general information which will tend to reduce the cost of living and at the same time furnish to our people an abundant supply of pure and wholesome food.

4. To issue bulletins whereby the people may be accurately informed from day to day of the current market prices in different parts of the State for various articles of food supply, and the probable immediate supply, and producers and distributors accurately informed of actual market demands and requirements of various localities, both in and out of the State. We believe this sort of publicity in itself would go far to prevent some of the impositions now practiced on the purchasing public.

At the present time distrust and suspicion exist on all sides, largely because of the lack of accurate information as to exact conditions.

Undoubtedly abuse and misconduct exist, but how much there is and how it can be minimized or stopped can only be ascertained through a permanent centralized department, with full authority to investigate prices, readjust methods and institute proper punishment where necessary.

Neither the producer nor the consumer begrudges transportation companies or distributors a fair profit, but they both strenuously object to being imposed upon and robbed. No private organization can satisfactorily protect them in these respects; only the State can perform this function.

5. To prevent the publication of false and misleading market quotations and insure that such quotations as are printed or published in the public journals or market papers of the State are correct and free from manipulation.

6. To make rules and regulations prohibiting the manufacture or sale of fraudulent foodstuffs within this State either for human or animal consumption.

7. To prevent the use of dyes and coloring matter in foodstuffs when such dyes and coloring matter are designed to deceive the purchaser as to the quality or kind of materials used therein.

8. To investigate fully into the production, manufacture or sale of all foodstuffs of every kind offered for sale or intended to be offered for sale in this State and, for that purpose, to have power, by subpoena, to compel the attendance of witnesses for the production of books, papers, documents and other evidence before the State Commissioner, or a deputy or special officer of the State Department, to the end that correct and accurate information may be secured by the State Department as to a business transaction of any person or concern engaged in the manufacture of or traffic in foodstuffs within the State; and generally to have such other powers and duties as will make it possible for the State Department to provide the people of this State with full and complete information as to all phases of their food supply. To this end the broadest possible powers should be given to the State Department of Markets.

MUNICIPAL

Market Departments

We recommend that each municipality in the State be authorized by law to create such adequate market departments as in the judgment of the people and authorities of such municipality are requisite for their needs.

We recommend that the Market Commissions or Commissioners of the various cities be appointed by the mayors of the cities and that in such cases the functions now existing be transferred to one centralized city market department.

The city of New York is without a proper market department. Such changes as are necessary should be made in the city's charter as will permit it to establish a proper department of markets.

In the other large communities of the State we believe it will be found that there is a proportionate need for the creation and development of market departments.

INTERSTATE

Market Commissioner

We recommend that the office of Interstate Market Commissioner be established; that this Interstate Market Commissioner be appointed by the Governor, and that it shall be his duty to look after interstate marketing conditions.

We suggest that the Interstate Commissioner be the chairman of a State Board, so that in cases of dispute between the State Market Department and the City Market Departments the Interstate Commissioner could act as a referee and arbitrator.

Among the duties the Interstate Commissioner could perform would be the valuable one of locating markets in other states for produce originating in New York State, and assisting the producers of other States to find a market for their produce in the cities of this State. He could be of material assistance in working with other states and the Federal government in securing the federal regulation and aid that are so much needed in connection with questions of transportation, standardization, grading, and market information of a general character.

STATE BOARD OF FOODS AND MARKETS

We recommend that a State Board of Foods and Markets (or a commission with similar title) be established; that this board consist of the Interstate Commissioner, the State Commissioner, the New York City Commissioner and four or six other commissioners, to be appointed by the Governor from different sections of the State to represent farming, transportation, and other interests.

We further recommend that the State Board be given as broad powers as possible to deal with the questions of transportation, distribution, terminals, etc.

CO-OPERATION IN BUYING AND SELLING

We believe that co-operative agencies by which collective buying or selling may be conducted are economic factors of great importance and should be permitted. On the other hand, without adequate State control, such agencies may lead and have frequently led to oppression and abuse.

The State has sought to control, in part, these practices through the operation of the so-called Donnelly Act, a statute which is intended to do, within the State, practically what the Sherman Law was intended to do in the Nation. But the Donnelly Act is too general in its operation to reach all the practices complained of, and it is likewise too inclusive as to prevent desirable co-operation through which alone great beneficial economies can oftentimes be secured. As a practical proposition the act is unenforceable; as an economic proposition it is wasteful.

Farmers' co-operative buying and selling agencies are threatened with dissolution under the terms of this act, and are now justly demanding of legislative agencies, upon the ground of economic necessity, that the State close its eyes to their modes of operation where found to be in violation of the existing law, or that laws be passed by the next Legislature exempting their economic co-operative endeavors from the operations of the present laws.

Co-operation Inevitable

Co-operation is inevitable. We are all practising it in some form or another. For the purpose of evading certain laws, written agreements have been largely supplanted by telephone and other verbal agreements. Their potency, when made in this way, is as great, in many cases, as when reduced in writing. It is high time that we recognized and admitted the obvious situation.

As long as we know perfectly well that co-operation exists, it would be far better to admit it and require that it be practiced openly and legally and not secretly and illegally.

The former method would be healthful and helpful; the latter is unhealthy and injurious.

We believe that the State Board should be given power to license co-operative agencies to buy and sell foodstuffs of all kinds and the necessary machinery, materials and apparatus. Concerns so licensed to be subject to State supervision as to capitalization and full publicity as to methods and profits; all fields to be left open, however, to free competition. All forms of such agencies, corporate bodies, or agreements, to be submitted to and receive the approval of the State Board, and only allowed to continue when found that they are:

- (a) Calculated to reduce costs of production and distribution, or both;
- (b) Not calculated to depreciate quality or healthfulness of food product or quality of service by distributor or to give inordinate profits;
- (c) Not unjustly discriminatory between persons or localities;
- (d) Not injurious to the trade of New York State or the public's welfare.

The State Board to have the right to revoke any license for practices detrimental to the well-being of the State, or to forbid specific acts found to be unfair competition, or in undue restraint of trade, or otherwise harmful. Proper provisions to be made by which the State Board can apply to the courts for injunctions when necessary.

It is not the intention of this report to enter into all the details of such proposed law, as the same is receiving further study, but to indicate the general outline thereof. In anything that is done care must be taken that the remedy provided does not prove to be worse than the ills sought to be cured.

Doubtless many of our difficulties arise through methods that are the result of injurious competition.

Our object should be to preserve the benefits that come from wholesome competition and do away with the evils of ruinous, wasteful competition.

Substituting co-operative methods means giving potential power to groups of individuals, and this power, as we know, is often used to the detriment and not for the benefit of the public. The closest and wisest sort of State supervision and regulation must, therefore, be provided; regulation that will prevent undue restraint of trade and abuses in trade but that will permit expansion of trade and secure for the public the benefits that come through co-operative effort.

Frank, open co-operation means maximum economy.

Ruthless Competition Means Economic Loss

Ruthless competition means economic loss through duplication of plants and wasteful methods, to say nothing of the strong temptation to exploit impure goods.

Unrestrained competition in our day can only be justified as a measure to protect the community from inordinate profits and artificial limitations placed on production; but with full publicity as to conduct, profits and the like and with the industry conducted under State regulation, the community could protect itself against these dangers, save for itself the existing waste, and effect economies that would be beneficial in reducing prices.

Legalized co-operation, publicly controlled, should be equally beneficial to producer, distributor and consumer and, in place of driving the small dealer out of business, should make it possible for him to do a more profitable business through eliminating the waste and doing away with unfair, ruthless competition. It would not improperly restrain trade and throw the laboring class out of employment.

On the contrary, experience has shown that proper co-operation, through saving the waste and increasing the volume of business, creates additional employment for all classes of labor.

MILK

For example, we believe that *the milk industry at the present moment needs to be handled through co-operative effort*. Some time ago, conditions reached a point on the farms, where the milk producers felt compelled to co-operate. They are doing this in almost open defiance of the Donnelly Act.

We believe they should be allowed to co-operate, but under State supervision and control, with their plan of operation made known to the public through the fullest publicity furnished by the State Board.

In the city the waste in the delivery of milk through duplication of service and unnecessary expense, is very great.

If co-operation on the part of distributors were allowed and, in turn, co-operation between producers and distributors permitted, unquestionably a very large saving could be effected.

In the city this can be done by a zone system of delivery that would cut down the delivery cost.

To-day in some large apartment buildings in New York city *the janitor or someone else sells the privilege to deliver milk* to the tenants. This is a form of graft that imposes on both the merchant and consumer. It would automatically disappear if there were but one organization for the delivery of milk.

Take another instance, viz.: the large waste that now takes place through the non-return of bottles. This waste could also be saved if there were but one delivery system.

FISH

Co-operation could be applied to the fish industry with very beneficial results.

Thousands of tons of our fish are annually thrown away in harborss or turned into fertilizer — sometimes to further the purposes of the fish dealers, sometimes because there is no demand from the public.

To a very great extent fish is used but one day in the week, whereas it should be used every day, and the public needs educating on this subject.

If co-operative organizations were responsible for the production and distribution of our fish, vast improvements in the entire industry could be inaugurated. The saving in waste would be very large and the service to the public would be vastly improved — all to the distinct benefit of producer, distributor and consumer alike, both in quality and price.

There is perhaps no one article of food used by the people of New York city that should be more plentiful, obtainable in better condition and at a more reasonable price.

Far more attention should be given to stocking the lakes of this State with fish, and to their care and protection.

If this whole industry were handled through co-operative method, under State supervision and control, in place of under the highly competitive methods that now exist without supervision and control, a vast improvement could be effected in a very short time.

The pollution of the waters around New York city and throughout the State during recent years has seriously affected our supply

of fish. The State should lose no time in taking steps to remedy this situation.

COLD STORAGE

We recommend that the proposed State Board be given supervision of the manner and methods by which foodstuffs are conserved from the time of over-production to the periods of under-production.

Such proposed State regulations should not be so unwise or oppressive in their form as to drive these necessary agencies from the State of New York to the shelter of more friendly states, but rather to promote and encourage the legitimate use thereof.

The proposed State Board could perform no more valuable service than that of encouraging the use of cold storage as a means of equalizing our food supply and the cost of same. Investigation shows that cold storage facilities are inadequate and should be enlarged and extended. This comparatively new device can be made a great boon to the people.

Under present conditions abuses undoubtedly exist which can be eradicated through the wise administration of State authority; and it is highly important that this matter be taken up in a constructive, far-sighted manner.

COMMISSION MEN

The commission men and receivers in the large cities have come under the suspicion of both the producer and consumer because of certain vicious practices on the part of a small percentage of their number, and, as a result, the honest commission men, wholesale dealers and warehouse men suffer from the ill-repute brought to this great body of business men by the practices of a small part thereof.

Efficient and practical State supervision, licensing and bonding should be provided which will free the trade from the operations of this small, ill-disposed group, the practices of which are injurious to the legitimate commission and warehouse men as well as to the producer and consumer.

We are convinced that the great majority of all dealers transact their business in an honest manner and will welcome any and

all publicity that a State Department, such as is now proposed, can give concerning those who try to take improper advantage of either the producer or consumer. Such publicity would eliminate the abuses and lead to a better understanding among all concerned.

CENTRALIZING DEPARTMENTS

Various isolated State functions in relation to foods and food traffic are now provided in our general laws. They are inadequate to the present needs and, in considerable part, fail of effectual administration. In some respects they are conflicting. These various provisions should be brought into the new State Market Department.

This applies particularly to the Bureau of Weights and Measures, some of the provisions of the present Agricultural Law of the State, and some of the activities now devolving upon the Department of Health.

We believe it would be advisable to make the heads of the Departments of Agriculture, Health and Education ex-officio members of the State Board.

The Governor's Commission, Mayor Mitchel's Committee, and the Legislative Committee have had various phases of these matters under consideration and have had available the information gathered and the conclusions reached by each committee.

After numerous joint conferences, the three committees have reached the conclusions and recommendations set forth above. If our joint recommendations, in a general way, meet with your approval, we presume that the next step will be the preparation of a suitable bill or bills to be introduced into the Legislature.

If this be your desire, we suggest that such a bill or bills be prepared by the Wicks Legislative Committee in co-operation with your Commission and Mayor Mitchel's Committee and introduced by the Wicks Committee as promptly as possible when the Legislature convenes.

Most respectfully yours,

On behalf of Governor
Whitman's Market
Commission:

GEORGE W. PERKINS,
Chairman

CHARLES W. WICKS,
State Senator

S. J. LOWELL,
Master, New York
State Grange

CLIFFORD S. SIMS,
Vice-President, D. &
H. R. R. Co.

GEORGE W. WARD,
Counsel

On behalf of the Execu-
tive Committee of
Mayor Mitchel's Food
Supply Committee:

GEORGE W. PERKINS,
Chairman

L. J. LIPPMANN

CARL A. KOELSCH

JOHN BUCKLE

GEORGE DRESSLER

CYRUS C. MILLER

W. C. MUSCHENHEIM

M. MAURICE ECKSTEIN

WM. H. CHILDS

On behalf of the Wicks
Legislative Committee:

CHARLES W. WICKS,
Chairman

N. M. MARSHALL

M. S. HALLIDAY

D. J. CARROLL

E. H. MACHOLD

W. W. LAW, JR.

H. L. GRANT

D. P. WITTER

FRANK J. TAYLOR

GEORGE W. WARD,
Counsel

Approved by Food and Market Committee of New York State
Mayors' Conference.

(Signed)

GEORGE R. LUNN,

Chairman.

SCHENECTADY, N. Y., *January 4, 1917.*

CONCLUSION

For the past five weeks, this Committee has been engaged in connection with the representatives of the foregoing committees and with Mr. Robert C. Cummings and Frank B. Gilbert in the preparation of a comprehensive bill creating the Department of Agriculture, Foods and Markets of the State of New York. This bill is designed to create a commission endowed with ample powers and facilities to remedy all unsatisfactory conditions in this report shown to exist.

That this or any bill will bring about an ideal situation is not claimed for it. That it will bring satisfactory State supervision and regulation is intended and believed. That it will encourage and promote the dairy industry of the State of New York is one of its main purposes. That there is a vital need for the exercise of State functions of the sort proposed by this bill is acknowledged by all thoughtful men who have considered the subject. The Com-

mittee asks at the hands of this Legislature careful consideration of the questions involved and solicits aid in the solution of these problems by support of the measure.

Respectfully submitted,

CHARLES W. WICKS,

Chairman,

H. E. MACHOLD,

Vice-Chairman,

N. M. MARSHALL,

MORRIS S. HALLIDAY,

DANIEL J. CARROLL,

WALTER W. LAW, JR.,

HENRY L. GRANT,

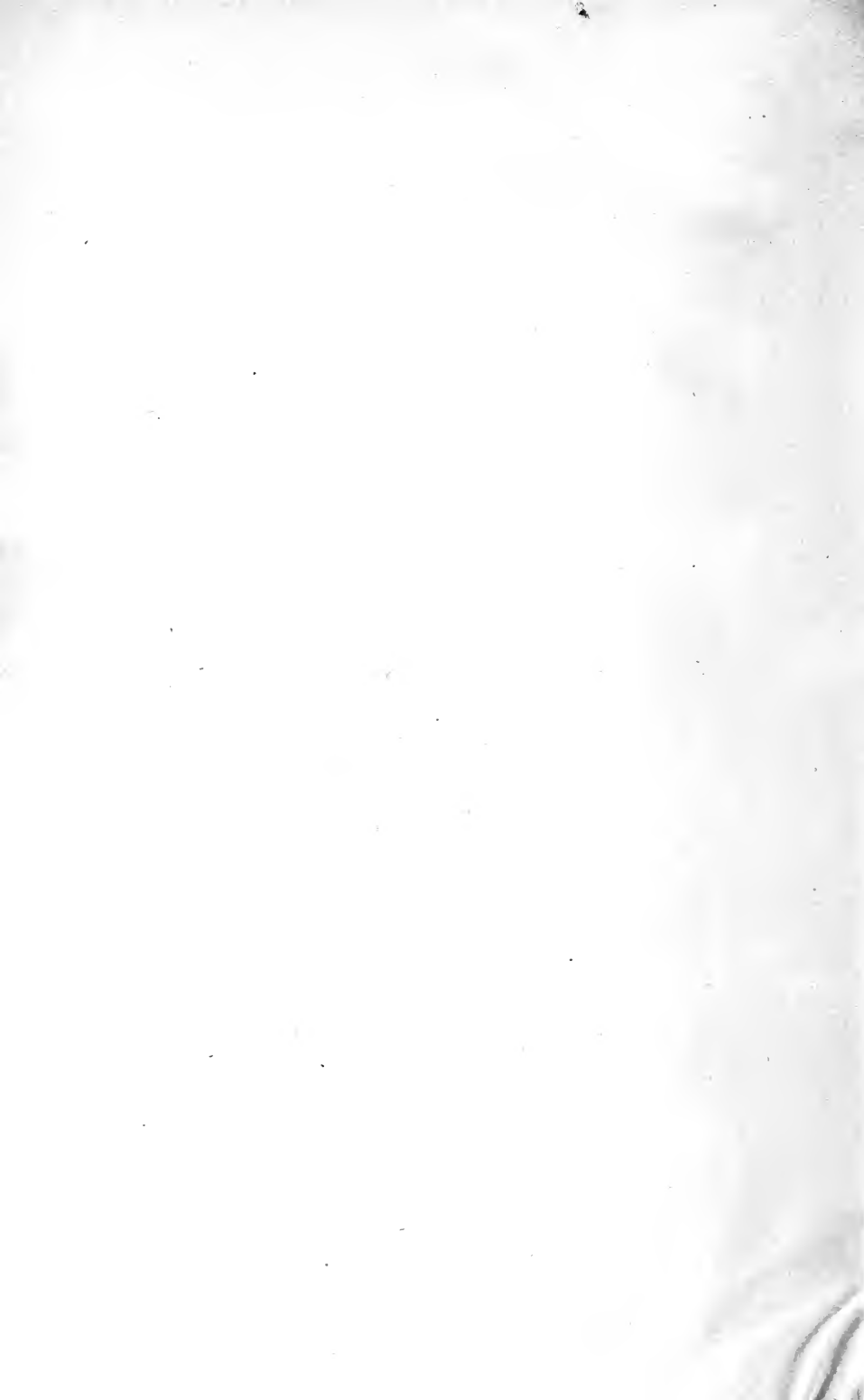
DANIEL P. WITTER,

FRANK J. TAYLOR,

GEORGE W. WARD, *Counsel.*









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